ENGINEERING and MINING JOURNAL.

VOL. XXIX., NO. 9. WITH SUPPLEMENT.

RICHARD P. ROTHWELL, C.E., M.E., ROSSITER W. RAYMOND, Ph.D., } Editors.
WILLIAM H. WAHL, Ph.D., Department of Progress in Science and the Arts.

NOTE.—Communications relative to the editorial management should be addressed to RICHARD P. ROTHWELL, P.O. BOX 4404, New York.

Communications for Mr. RAYMOND should be addressed to ROSSITER W. RAYMOND, P.O. Box 1465, New York. Articles written by Mr. RAYMOND will be signed thus *.

SUBSCRIPTION PRICE, including postage, for the United States and Canada, $4 per annum; $2.25 for six months; all other countries, including postage, $5.00 = 20s. = 25 francs = 20 marks. All payments must be made in advance.

REMITTANCES should always be made by Post-Office Orders or Bank Drafts on New York, made payable to THE SCIENTIFIC PUBLISHING COMPANY.

THE SCIENTIFIC PUBLISHING CO., PUBLISHERS,
27 Park Place, New York.

CONTENTS.

EDITORIALS:	PAGE.
Editorial Correspondence—A Bird's-Eye View	147
Bernhard von Cotta	147
Naming Mines	148
The American Institute of Mining Engineers—After-Dinner Verses	149
The Bernhard von Cotta Foundation	150
San Juan Mining Notes	150
Rebuilding of a Blast-Furnace Stack Without Blowing Out	151
NOTES:	
Almanac for Engineers and Manufacturers	149
Origin of the Word Tramway	151
Prussian State Railways	151
PROGRESS IN SCIENCE AND THE ARTS:	
Another Richmond in the Field	151
Technical Notes	151
Statistics of Siemens's Regenerative Gas-Furnaces	151
Water as Fuel	151
The Classification of Steel	151
The American Society of Mechanical Engineers	152
LABOR NOTES	152
GENERAL MINING NEWS:	
Arizona	152
California	152
Colorado	153
Dakota	154
Georgia	154
Idaho	154
Montana	155
Nevada	155
Utah	155
PROPOSALS	155
ASSAY DEPARTMENT	155
FINANCIAL:	
Gold and Silver Stocks	156
Coal Stocks	159
Copper Stocks	158
Gas Stocks	159
BULLION MARKET	159
METALS	161
IRON MARKET REVIEW	161
THE COAL TRADE REVIEW	161
STATISTICS OF COAL PRODUCTION	162
FREIGHTS	162
Miscellaneous Stocks and Quotations	159

W. B. COGSWELL, M.E., has returned from Europe, after an absence of nearly a year. His address is Syracuse, N. Y.

WE call attention to the advertisement of a concentrating mill for sale, on page vii. of this issue.

THE editor of the *Iron Age* is credited with doing a little pirating, not for Penn's Aunts, although perhaps for his successors. See the "Modern Mining Engineer," published elsewhere.

THE interest in mining has developed to such an extent in this city that among our exchanges we now number a daily mining paper, entitled *The Daily Mining News and Evening Postal Card.* This publication, besides giving the general news of the day, devotes considerable attention to mining.

WE publish, in this number, a letter from the San Juan (Colo.) Mining District, by Prof. THEODORE B. COMSTOCK. It might be made applicable to nearly every district in this country, and shows that the writer realizes the true interests of mining. It is much to be regretted that every mining camp in this country has not a similar gentleman in it. If it had, the schemes of the unscrupulous would be thwarted, capitalists would purchase mines at prices which would give promise of a reasonable return on the investment, and soon mining would assume the position of being the most profitable of industries, which it should be.

EDITORIAL CORRESPONDENCE—A BIRD'S-EYE VIEW.

MARICOPA, ARIZONA, Feb. 14, 1880.

TO THE OTHER EDITOR:

MY DEAR BOY: I am very well aware that you presented me with a patent perpetual-flowing pen, on condition that I would write for the JOURNAL all the way overland. You thought you had secured an immense amount of editorial copy by that neat little device. But you didn't foresee, though you might have done so, that the pen wouldn't work, and would get itself speedily thrown away, leaving the Editor with a first-rate excuse for doing nothing but read novels or exchange yarns with veteran hunters, miners, and explorers encountered along the road. So here at last we are, stranded for a day in this be-e-autiful Gila desert, by reason of a railway smash, which cast us down but did not destroy us; and having a day on our hands, I hear the still voice of conscience commanding the fulfillment of that now ancient promise.

A winter trip across the continent is not a very terrible thing now, whatever it may have been when people went on foot or horseback, and got lost in the snow and ate mule-meat. Now, the principal difficulty is the zealous way in which the Pullman cars are kept warm. For the rest, the presence of snow is but a slight inconvenience, and highly welcome as the price of the absence of dust. In nearly a score of crossings, I can not recall one which was so comfortable.

A stay of several days in and about Salt Lake enabled me to gain some general notion of the prospects of the mining industry of Utah for the coming year. They are undoubtedly improving. The activity in some of the southern districts is echoed, albeit rather feebly, from Bingham and the Cottonwoods, where the advance in the price of lead will cause many a small enterprise to take courage and go ahead. But the lead product of the year will not be large. Nearly all the smelting-furnaces on the Jordan are idle. I saw, perhaps, three in operation. The Germania Works have but one furnace running on ore—the supply being too small for more at present. But the refinery is making money at a great rate, having an excellent market in San Francisco for a large part of its refined lead. The Germania lead commands a high price for corroding—a purpose to which no other lead refined in the West can be applied with equal success.

The Old Telegraph mine (*Société de Bingham*) appears to be on its last legs. What every body knew at the time of the sale to the French company, every body will now say they knew—that is all. The whole thing was both outrageous and unfortunate, and has seriously injured the reputation of Utah mines. But further comment may be spared until the final summing up, when it may be worth while to try to make the matter a warning to the next lot of fancy experts and foolish buyers.

In California, all business is still depressed. The wave of returning prosperity has not yet reached that coast. But, in my judgment, there is in the present sad condition of affairs there some element of deserved punishment for the shameful surrender of politicians to the reckless and ignorant party of which KEARNEY is a shining light. The new constitution, and the precious lot of legislators now sitting at Sacramento, and raving against all the representatives of industry and intelligence in their State, from the Chinaman to the "lecherous" bondholders—these are the fruits of the folly of men who might have conducted affairs into a different channel, had they subordinated their party ambitions to the good of the commonwealth. Now the road of remedy will be long.

The exceeding flatness of the Comstock shares is another feature of the somber picture presented just now by San Francisco. The swell speculators who used to patronize the hotels are seen no more. They are in New York, running a "boom" in mining stocks there; or they are "broke," and gone utterly. Several of the well-known San Francisco hotels are about closing. The buildings will be turned into business offices.

As for the Comstock mines, it is hard to feel very hopeful as to their future. The Sutro Tunnel, which might have saved them millions, now comes almost too late for their rescue. But one must admire the magnificent pluck with which money is still expended—hundreds of thousands every month—to explore the depths of these famous mines; and one can not but hope that Senator JONES is right when he prophesies that the Comstock mines, which "have been going through a barren zone, are about to enter a fruitful zone." The barren zone is a trustworthy fact; I shall rejoice if the other proves as well founded and as extensive.

The season in California has been exceedingly cold. Even here in Arizona, there have been unprecedented amounts of snow, in localities like Tucson, where it is almost unknown. The knowing ones look forward with joy to a fine season everywhere for placer-mining and agriculture. Plenty of water—that means plenty of work and plenty of pay. For this year, perhaps, the ancient reproach of Arizona, that "it is the country where the fish carry canteens," will be taken away.

There is considerable activity here in mining enterprises. I have heard of a number of very fine properties for sale—almost always at what seemed to me exorbitant prices. Leadville operations (which are exceptional in their character) have demoralized the mine-owners in other districts. *Good mines at extravagant prices*—that is the greatest danger which threatens the New York market. But it will correct itself. New York is not so eager to buy mines as hundreds of people are to sell them. Hence, the extravagant prices must come down. *

BERNHARD VON COTTA.

WITH SUPPLEMENT.

The death of Professor COTTA, at Freiberg, Saxony, on the 14th of September last, terminated an honorable and distinguished career in science, and removed from earth a genial and brilliant soul, beloved by a circle of colleagues, pupils, readers, and friends, co-extensive with the civilized nations. We are indebted to Professor STELZNER, of the Freiberg Academy, for the materials of the sketch of Professor COTTA's life and works; and we are sure that in publishing such a sketch we meet the wishes of a large number of American engineers who, like ourselves,

cherish affectionate personal remembrances of the man. We regret only that our limited space does not permit us to translate and publish in full the excellent memorial of COTTA published by Professor STELZNER.

BERNHARD VON COTTA was born on October 24th, 1808, at Zillbach, in Eisenach, where his father, HEINRICH COTTA, was, at that time, chief forester and head of the private school of forestry. HEINRICH COTTA was subsequently moved to Tharand, where in 1816 he established, for the Saxon government, the famous Royal Academy of Forestry, which he rapidly and successfully developed, introducing at the same time numerous reforms in the Saxon forestry system, and devoting himself also with zeal to the allied natural sciences. Among the results of his activity was a valuable collection of fossilized woods, and a report of local geological examinations.

BERNHARD entered, in 1827, the Mining Academy at Freiberg, which he left in 1832, to complete his studies in mining law at the University of Heidelberg, were he received the degree of Doctor of Philosophy. Devoting himself, however, by preference to the natural sciences, he returned to Tharand, and employed himself with the study of his father's collections, and with geological explorations in the neighborhood. His first publications were a treatise on *Dendrolites* (1832), *A Geological Creed* (1835), and the first part of his *Geognostic Wanderings*. His ability was speedily recognized by an appointment as assistant to Prof. C. F. NAUMANN, in the preparation of the geognostic map of Saxony. Having charge of the eastern part of the kingdom, he had to deal with the peculiar and perplexing stratigraphic relations of the granite, Jura lime, and quader-sandstone at Hohenstein —a problem which, in that day, commanded so much attention from geologists that the enthusiastic young investigator was able, with the aid of such *savants* as HUMBOLDT, LEONHARD, and DE BEAUMONT, to carry out a plan for a series of excavations, for the sole purpose of studying the facts in the interest of science. The expenses of this operation were paid by the voluntary subscriptions of German geologists—an instance perhaps without a parallel in the history of geological explorations. The result was the demonstration (1838), in the second part of the *Geognostic Wanderings*, that, at Hohenstein and other points of the zone extending from Saxony to Bohemia, peculiar slides or overthrows had brought the older geological formations above the later ones.

The labors of COTTA upon the survey of Saxony and Thuringia lasted until 1847, when the map of Thuringia was published. Meanwhile, he became, in 1839, connected with the Tharand Academy, as Secretary of which he published, in 1842, the first number of the *Forestry Annual*. In the latter year, he was called to the Freiberg Mining Academy, to occupy, upon the removal of NAUMANN to Leipsic, the chair of geognosy, which he retained until 1874; lecturing during the whole of this period of thirty-two years upon geognosy, and, from 1843, upon paleontology, and, from 1851, upon the science of mineral deposits. All students of general economic geology are aware that this period was one of great and useful activity on the part of a circle of instructors connected with the Freiberg Academy, which has left its indelible marks upon both the practice and the literature of mining metallurgy. The impulse given by WERNER, the father of modern geology, to the study of that science was worthily continued by his successors and pupils; while the different branches of mining, engineering, metallurgy, and mineralogy were pursued with enthusiasm and industry, and with most fruitful practical results. We need only mention the names of FRIESELAVES, BEUSD, BREITHAUPT, GAETZSCHMANN, REICH, RICHTER, SCHEERER, PLATTNER, FRIEZCHE, and the two WEISBACHS to prove the truth of this assertion. Pupils of these men are found in all parts of the world, and their books, translated into many tongues, are recognized as authorities of the first rank. No one among them was more productive than COTTA, who published a considerable number of manuals and text-books, primarily intended for his own classes, but rapidly attaining a wider circulation; almost innumerable reports on mines and mining enterprises, geological reconnaissances, and treatises, both popular and technical, upon dynamic geology. Among the text-books on geology is *Die Gesteinlehre* (1855; second edition, 1862; English translation by LAWRENCE, *Rocks Classified and Described; a Treatise on Lithology*, 1866; second edition, 1878). His *Lehre von den Erzlagerstätten* (1855; second and enlarged edition, 1859-61) is well known to American readers from the translation of Professor PRIME (1870). The interesting and valuable *Gangstudien* (3 volumes and the fraction of a fourth, published in Freiberg from 1847 to 1862) have never been translated, and perhaps would not, on the whole, repay a republication. The different articles, by different authors, vary in value. Some of them, however, like WEISSENBACH'S "Classification of Mineral Veins," are classics and oft-quoted authority. The views of OSCAR LIEBER, the brilliant young geologist of South Carolina, concerning the gold-bearing deposits of the Southern States, were first published in this work, although they appeared in substance in LIEBER'S subsequent English report.

COTTA, more than any other writer, may be called the leader in the Saxon school in the science of ore-deposits. The classification into types which he pursued—and he refers all ore-deposits to classes comprising veins, beds, masses, impregnations—is not a perfectly satisfactory one from the stand-point of science. Its leading distinctions rest too much upon accidental features, and particularly upon the form of the deposits; but, as Professor STELZNER well remarks, the weight of COTTA'S writings goes to demonstrate throughout that ore-deposits are local phenomena which must be studied in their individuality, and their formation is not to be prophesied or inferred from any sweeping geologic orgeographic formulas. Against such a dictum as that of MURCHISON, who referred the gold deposits of the world to the Silurian rocks exclusively, or that of BEAUMONT, who connected the metalliferous deposits with an ingenious law of "pentagonal symmetry," COTTA constantly argued. We may add, concerning his classification, that it has its advantages for the mining engineer, however it may be criticised by the geologist and mineralogist; for the very distinctions of form which seem to be scientifically insignificant are those which often determine all the plans and details of mining operations.

As a geologist, Professor COTTA can scarcely be said to have been attached to the extremists of any school. He followed, with conservative spirit, the theories of the chemical geologists, and occupied, on the whole, nearly the attitude which was taken in England by LYELL. Like the latter, but with more readiness, he gave his assent to the hypothesis of Darwinism; and in his famous work, *Die Geologie der Gegenwart* (published in 1866, on the occasion of the centennial of the Freiberg Academy), he extended the principle of development over the whole inorganic world. This work was more popular than technical, and contained little that was new to scientific men; but it constitutes an admirable summary of the existing state of geological inquiry, presented in a charming style and illustrated from the stores of an abundant experience. To use the author's own words, the fundamental thought of the work is gradual development by the constant summation of individual effects—a natural law, of which DARWIN'S theory of species is only a special application to organic life.

In 1876, Professor COTTA formed the plan of a history of geology; but only the introductory volume was ever finished. This appeared in 1877, under the title of *Geologisches Repertorium*, containing a chronological catalogue of geological publications down to the end of 1876. Incomplete as it is in many respects, it is nevertheless a most valuable work, and reflects much credit upon the tireless industry of its compiler.

Professor COTTA edited a considerable number of important translations from foreign languages, including several treatises by FOURNET and a German version of LYELL'S *Geology*. His contributions to various periodicals and his general literary work it is almost impossible to enumerate. Perhaps the most important book which we have not yet mentioned is the *Letters upon Humboldt's Cosmos*, comprising two volumes, both of which, in their time (thirty years ago), attracted much attention, and were both heartily praised and severely criticised.

To us, and we can not doubt to thousands of others, the impression produced by the writings of BERNHARD VON COTTA is inseparable from the personality of the man. His restless activity, genial humor, and cordial hospitality; his fidelity and friendship; his patience, skill, and tact as a teacher; his merry, boyish spirit as a comrade in the field, endeared him to successive generations of young men, who now, from every civilized country in the world, look back upon their student days at Freiberg with affectionate remembrance. Will there ever again be such geological excursions to Meissen as, under COTTA'S leadership, there used to be?

We recall with pleasure a day in 1873, when we revisited, for a few brief and pleasant hours, the old town and the old school. Time had wrought great changes in both. SCHEERER, COTTA, and GAETZSCHMANN had already practically ceased their active labors of instruction. The elder WEISBACH was gone. A railroad station had made its appearance in the suburbs as a type of the new era, and in a chamber of that modern building a few of the old professors honored us with a social gathering; the past cheerfully accepting the changes of the present, and looking forward with quiet expectation to the future.

In the beginning of 1877, a stroke of paralysis, disabling the left side of Professor COTTA, gave notice of the approaching end. He failed gradually in bodily strength, though apparently not in clearness of intellect, until, on the 14th of last September, he fell asleep. *

NAMING MINES.

Of all people, the Americans are the most servile copyists—exercise the least invention or even rational selection in the designations they give to localities. If the philosophy of names received a little more thought, a vast amount of uncertainty and mistake would be saved. The matter is very far from being one of indifference, or of sentimental interest only. A name is a call-word, and is nothing if not distinctive.

There are in the United States, sixty-four Springfields, sixty-six Washingtons, eighty-nine Jeffersons, with Jacksons and other popular favorites in proportion. We have always admired the tact and wisdom of the unknown genius who, when the people of Summit County, Ohio, insisted on naming their county-seat "Summit," deftly turned it into Greek, and,

by calling it Akron, gave the town a name of its own. The citizens of that thriving place should raise a monument to his memory. Unfortunately, after our fashion, the name has been plagiarized, and there are now seven post-offices called Akron. But as there are seventeen Summits, the inhabitants of the Ohio town still have ample cause for gratitude.

Our purpose just now is to call attention to this subject in connection with the bestowal of appellations on new mines and mining districts. The present nomenclature is to the last degree confusing. There are "American," "American Flag," "Champion," "Columbia," "Comstock," "Centennial," "California," "Dolly Varden," "Eureka," "North Star," "Sunset," and "Wheel of Fortune" mines in senseless iteration, and so of fifty other similar titles. We once asked an otherwise very sensible San Juan miner, why he called his location the Bobtail. "There is a big mine of that name up in Gilpin County," he replied; "may be this one will turn out like it." It was strange that he did not perceive that this was the best possible reason why he should have chosen another designation. If his mine turned out well, he would feel it a misfortune to have its record confounded with that of its namesake; besides which, in that case, his action would work a double injustice.

When you organize a new district, Messrs. Miners, don't call it "Gold Hill." There are five important ones of that name already, besides a greatly larger number of less prominence. That is enough; try something else. Don't call your town "Virginia City;" it was a very good name at first, but it is used up. Your intention about the matter is to give your mine a *name*. Do IT.

Another suggestion. The mining news published in Western newspapers is largely for the benefit of readers at a distance from the localities where it is gathered. The "Emma" or the "Susie" mine is well known in the office of the newspaper; but when the item is read a couple of thousand of miles away, the particular Emma or Susan reported upon has become nebulous. Give district or county.

We shall one day, no doubt, have some sort of a bureau of mines at Washington, and we hope one of its regulations will be that two mines of the same name shall not be patented in any one State or Territory. The Post-Office Department has a similar rule in regard to the names of post-offices. Meantime, after calling the attention of miners to the matter, we invoke their charity and good sense, not to add to the present confusion by the further multiplication of names already used overmuch.

THE AMERICAN INSTITUTE OF MINING ENGINEERS—AFTER-DINNER VERSES.

DR. R. W. RAYMOND'S LETTER, WITH POEM.

To Mr. A. L. HOLLEY:
It makes me melancholy
To think of all you chaps,
Who think of me, perhaps,
As you feed at Delmoni-
Co's on milk and honey
(Or modern delicacies
Which mostly take their places).

And with you are the ladies!
That thought I am afraid is
Too much for me to bear!
I wish that I were there—
To cheer at ECKLEY COXE'S
Profoundest paradoxes:
To weep when Dr. DROWN
Concludingly sits down;
To smile and call it fun,
When you get off a pun;
And as the banquet mellows
The hearts of all the fellows,
To speak upon the text
You give me, which is *next*
To that I would *prefer*,
If fate propitious were.

Then, it would be my choice
To lift a trembling voice
For "Woman, Heaven bless her!"
And leave to my successor
The less exalted strain
Which now I must maintain;
For, I am well aware,
The champion of the fair
Must in the lists appear
With pennon and with spear.
They want no trumpet blown
Through a mere telephone;
They smile upon no knight
Who lingers out of sight;
They waste no tender sigh
Upon an alibi;
They are too proud to own a
Lover in Arizona;
So with a groan I yield
To happier men that field,
And take the drier toast
You kindly have proposed:

OURSELVES.

Beside a thousand turbid streams
We follow where the treasure gleams.
The onset of our mighty hose
Disturbs from ages of repose
The rocky guardians of the gold
Left by the refugees of old,
When rivers hastened, sore bestead,
And dropped their jewels as they fled.

Beneath the everlasting snow
Of stainless summits, blow on blow
We smite and delve; we pierce and blast
Along earth's veins, until at last
The sleeping mountains, long at rest,
Dream troubled dreams, and tremble, lest,
With inward throes that shake and burn,
Old geologic pangs return.

There, for a while, reluctantly
The shore surrendered to the sea
And where, anon, with sullen roar,
The sea retreated from the shore,
And great fern forests lived and died
To mark the battle's changing tide—
Their tombs we spoil, to bear away
The sunshine of an elder day.

What wakes the echoes of the hills?
The clangor of our stamping-mills.
What paints the sky with midnight reds?
The flaming of our tunnel-heads;
The blinding, blasting breath that slips
Through fierce converters' bellowing lips;
The fiery snakes, that to and fro,
Among the roll-trains glide and glow.

Ho! merchants, in the city's din,
We find the coin you slave to win.
Ho! sturdy growers of the grain,
We help you till the fertile plain.
Ho! gallant sailors of the sea,
Stanch comrades in your toil are we.
Behold our work from mast to keel,
In iron hulls and shrouds of steel.

We hail, in every rank of art,
The earnest souls that do their part;
Yet not to any lower the crest
Of that we deem the worthiest;
The art which first of arts began;
The art which most has wrought for man;
And we will greet with loudest cheers
Ourselves—the Mining Engineers!

THE MODERN MINING ENGINEER.*

I know our carboniferous King Coal and Thomas Anthracite;
I know the points of difference 'twixt specular and hematite;
I quote in high-toned phrases, and disdain to use tautology,
And sing the toughest passages in Dana's Mineralogy;
I tell undoubted crystals from anhydrous clays or cobble-stones;
I've learned the different systems, and I've studied Claiborne fossil bones;
I know the thermic units of the melting-point of Franklinite;
Can tell a modern pollywog from saurian or troglodyte;
I'm posted on the theory and practice of biology—
But I'm just a trifle weak upon the nice points of theology.
In fact, in matters vegetable, animal, and mineral,
I am a very model of a scientist in gineral.

I know some cheerful facts about deposits argentiferous;
I've made myself authority on treating ores auriferous;
I have a pretty fancy for resilience and tensility—
And when a fee is tendered, I can take it with agility.
I'm not restrained by modesty from telling what I know about,
And at our meetings thrice a year my facts I freely throw about.
I talk on any subject that the chair declares debatable,
And take delight in formulæ when figures are "equatable."
In fact, in matters practical, tangential, or centrifugal,
I am a very model of an expert scientifical.

I know the average tensile strength of water-gas and CO_2;
Can give the fixed atomic weights of FeO, and P. D. Q.;
Can calculate the make and cost of Bessemer or Pernot steel,
Or tell with a pyrometer how spirits in Inferno feel.
I can manage a blast-furnace and a mighty yield of cinder make,
And for my fuel coal or coke, petroleum or tinder take.
I can write a tedious paper on 'most any thing you choose to name,
And credit for the things I've done it isn't any use to claim.
In short, I'm crammed on every thing, and hope I've made the fact appear
That I'm a very model of a modern mining engineer.

ALMANAC FOR ENGINEERS AND MANUFACTURERS.—A sheet almanac, with a series of useful tables, including decimal equivalents of weights and measures, weight of bar, flat iron, and castings, and table of screw-threads, is published by the Nottingham Malleable Iron Company. Some illustrations of numerous forms of castings in malleable iron are also upon the sheet, and these show how very numerous are the applications to which malleable iron castings are now put, and give some notion of the saving which may be effected as compared with the use of wrought-iron. —*Engineer.*

* The authorship of this has been credited to a distinguished professor, but suspicion rests upon Mr. J. C. Bayles, editor of the *Iron Age*.

THE BERNHARD VON COTTA FOUNDATION.

Professor BERNHARD VON COTTA quietly expired on the 14th of September, 1879, after being almost entirely confined to his house during the last few years of his life.

Among the numerous pupils now scattered throughout all parts of the civilized world, who have been trained by the deceased during his career of thirty-two years as a teacher at the Royal Mining Academy of Freiberg, as well as among the no less numerous admirers of his laborious and exceptionally successful career as an author during a period of forty-five years, this sad news will arouse painful sympathy. Yet it will, at the same time, call up most grateful recollections among all who have been able to listen to the stimulating lectures of the lamented professor, and who accompanied him upon his instructive excursions and journeys; all who remember hours of social pleasure passed under his hospitable roof; and among all who have had the fortune to secure his warm support and unselfish friendship, and to possess the acquaintance of a man so gifted with noble endowments.

It is the belief of the undersigned that they merely anticipate the wishes of numerous of their former fellow-students in suggesting that this grateful memory of the deceased shall receive a more definite expression and a more permanent form.

They therefore address to all his pupils and friends a respectful invitation and request to unite with them in erecting in Freiberg, on some suitable spot, a simple monument to their deceased master, and in establishing an endowment, to bear the name of the BERNHARD VON COTTA FOUNDATION, and to be applied to the assistance of needy students at the Royal Mining Academy of Freiberg, either to enable them to participate in geological excursions and more extended geologico-mining journeys, or in any other way to advance their studies.

By this means, the memory of the deceased, which can never perish in the hearts of his pupils and friends, will also be preserved to future generations.

Definite provisions for carrying out the foregoing proposition can not be adopted so long as the result of this appeal is unknown.

Indeed, the undersigned would consider it advisable that the Faculty of the Royal Mining Academy of Freiberg be requested to undertake not only the erection of the monument, but also the organization and administration of the endowment, with the single proviso—certainly in harmony with the sentiments of Von Cotta—that the benefits of the foundation are to be open to deserving students, irrespective of nationality or religion.

Those who favor the plan thus proposed are requested to send their contributions to Prof. George J. Brush, New Haven, Conn., and also to aid in the circulation of this appeal, so that it may reach those friends and pupils of the deceased whose present residence it has been impossible to ascertain.

As a financial statement, together with the statutes of the Cotta Foundation, will be sent to all contributors, it is requested that when forwarding their subscriptions they state precisely their respective addresses.

ANDRÉ CORDELLA, Mining Engineer, Athens.
ROBERT DACH, Director of Mines, Alstaden, near Oberhausen, on the Rhine.
EDMUND VON FELLENBERG, Geologist, Bern, Switzerland.
ERMINIO FERRARIS, Director of Mines, Monteponi, Iglesias, Sardinia.
DR. C. LE NEVE FOSTER, H. M. Inspector of Mines, Truro, Cornwall, England.
VICTOR GOLDSCHMIDT, Metallurgical Engineer, Heidelberg, Baden.
PROF. KARL HAUSHOFER, Munich.
FRIEDRICH HOFMEIER, Director of Mines, Ladowitz, near Dux, Bohemia.
BELA VON INKEY, Geologist of the Hungarian Geological Survey, Buda-Pesth, Hungary.
PHILIP HENRY LAWRENCE, Lincoln's Inn, London.
HERMAN MUELLER, Oberbergrath, Freiberg, Saxony.
H. V. OPPE, Director of Mines, Zwickau, Saxony.
DR. OTTO PROELSS, Director of Metallurgical Works, Bensberg, near Cologne, Prussia.
DR. THEODORE RICHTER, Director of the Royal Mining Academy, Freiberg, Saxony.
DR. ALFRED STELZNER, Professor of Geology at the Royal Mining Academy, Freiberg.
G. VON THIEME, Ministerial Councelor and Professor at the Imperial Mining Academy, St. Petersburg, Russia.

The undersigned, having been appointed a committee to act for America, cordially unite in the above appeal, and request that contributions to the Von Cotta Foundation may be sent to Professor George J. Brush, New Haven, Conn. It is hoped that at least one thousand dollars may be raised in the United States for this end.

GEORGE J. BRUSH, New Haven, Conn.
FREDERICK PRIME, Jr.,
907 Walnut street, Philadelphia, Pa.
RAPHAEL PUMPELLY, Newport, R. I.
ROSSITER W. RAYMOND,
17 Burling Slip, New York City.

SAN JUAN MINING NOTES.

Special Correspondence of the Engineering and Mining Journal.

San Juan is doomed this season. At least ten feet of snow have fallen already, and there are signs of more in the air. This mass of fleecy material has settled to five feet, average level. Snow-slides have been abundant and of enormous size, but very few accidents have thus far occurred. Our mails are brought many miles on snow-shoes, and we have no other mode of travel. Mines are worked without difficulty, provided that they are accessible, as very many prospects now offering at the East are not—some of them not even in the summer. Every body here is looking for a great rush next summer, and the rapid approach of the railroad affords additional encouragement. If those who visit us expect to go away with any thing like an adequate idea, either of our resources or our drawbacks, hey must be prepared for great muscular exertion; but we can offer climatic advantages of the very best character. The traveling season will open quite late this year, though there will be better facilities than ever before.

Since my January letter, there has been but little change of noteworthy importance. New mining companies have been formed, with excellent intentions; some well prepared for their proposed work; others cunningly planned to line well the pockets of the controlling ring. A writer in the La Plata *Miner*, using the signature of "G" only, presumably one whose opinion would carry some weight in certain Eastern circles if expressed over his own name, merely on account of his position, has announced that the effect of some of the warnings that have been sent out from here has been only to draw more attention to the schemes denounced. If this be true, we begin to fear that more wild-cats are abroad than have yet been detected. The *Miner* is notorious in this section for its policy of praising every mine, miner, mining scheme, and other local enterprise whatever, evidently in the belief that this is the most loyal course to pursue, as it is undoubtedly the easiest, editorially considered. This is the only charitable way of explaining its advocacy of certain schemes, unless one adopts the alternative of considering its managers wholly ignorant of mining affairs.

We here are liable to be sadly misrepresented by some of our kid-glove representatives, who dare not brave the storms and trials of our winter climate. Before we are aware of any of their designs upon Eastern capitalists, the damage has been done, and we learn first through delayed Eastern newspapers of successes which all who seek San Juan's best interests openly denounce as new stabs in the dark. Let all those who have invested in prospects in this region visit us next summer and see how many of them have been duped into purchases of worthless or overestimated property. The best claims in this region are not begging for purchasers; but it is a fact that sales are made every day of prospects of real promise, for as many hundreds of dollars as are paid thousands for almost useless veins. I know a claim sold for several thousands, which I could have purchased last summer for less than two hundred dollars, and it is not worth more now than then. I know of twenty thousand dollars paid for claims with no better showing than neighboring veins and extensions of the same, which have been begging for the sum of one thousand dollars. I could point to sales of property in the East, for from five to fifty times the owner's price, by men who never saw what they are selling, and who could never by any possibility distinguish one rock from another. I might—but the subject grows wearisome, and I desist. Let not investors believe that the sturdy, honest miners, and other residents of San Juan, are in league with these birds of prey, who make a living out of the credulity and avarice of the East. Far from it. Every scheme and design of this character is daily condemned, in my presence, by men who have faith in this district, and who are really working for its best interests.

But enough of this. We shall soon be better known, and persons who desire legitimate investments in a rich and growing mining region will find here ample scope for their energies.

There has been organized recently the Moline (Illinois) Silver Mining Company, with a capital of $125,000 in shares of $100 each. Dr. P. L. McKinnie is the president, and J. R. McKinnie, an old resident of Eureka, has been chosen to act as superintendent. It is impossible to speak very fully of the enterprise as yet, for lack of the fullest information, though it is surmised that large sums have been paid for undeveloped properties; $25,000 have been set aside for the purchase of additional claims, although the company now controls several prospects separated by from three to ten miles from each other, all requiring separate development. Only one third of the capital is to be used for working purposes. Our best wishes are with this organization, but we hear too many rumors to heartily encourage the scheme, as it now appears. If we become fully convinced of its reliability *in toto*, we shall be very glad to notice it favorably. There is too much of an air of secrecy about the movements of its officers to please people hereabouts, and it is suspected that one or more of the lodes included left the owners' hands at a very moderate sum compared with the price paid by the company. This is the case with many similar enterprises. Too large a percentage of Colorado mining capital is kept east of the mining districts, where it is needed.

The weather has been excessively cold since the beginning of the last week in January, the mercury falling several times to 30° below zero. This has severely tested mining tools, the frost causing breakages in steel that had previously withstood the shocks incident to the most refractory rock-drilling.

There is some reason to look for better prices, next season, for low-grade ore. The common practice in this district, as in others, has been to throw upon the waste-dump large quantities of ore which is not immediately available, and there is no doubt that much of this material, if saved, could soon be worked profitably. The process of mining, as here understood, is often very wasteful indeed, and it will continue to be so until amateur management is replaced by greater skill and knowledge. We learn of several new cases of companies which have employed boys and untrained individuals to superintend the development of property in this neighborhood, and we could, if we would, predict about as many failures, which will be attributed to the poor quality of San Juan ores, or to the uncertain nature of the mining industry.

The subject of ore-concentration is receiving just now some attention. This process must eventually be largely employed here. There seems to be some misunderstanding as to the capabilities and adaptations of this method of increasing the value of given bulks of ore, and much surprise has been expressed that certain classes of low-grade mineral have been concentrated by the wet process without success. This is the case, as every well-informed person must know, with galenas and other ores, in which there is little besides metalliferous compounds. These are often reduced in silver value by concentration because the containing mineral is the one which passes off more or less into the tailings. But there are large quantities of highly quartzose ores in this region which will be very much reduced in bulk by concentration, without material loss in metallic ingredients, thus greatly increasing the value per ton. In the majority of cases, these ores will not pay to transport to the works, hence concentrators must be erected as near as possible to the source of supply at the mines.

The report has been started in the East, that your correspondent has pur-

chased undeveloped properties in this neighborhood at prices ranging from $15,000 to $30,000. This I wish here to deny most emphatically, and to state that I know of no such claims anywhere in this neighborhood which I should advise any one to purchase at such figures, although not a few have already done so to their cost. THEODORE B. COMSTOCK.

EUREKA, COLO., Feb. 5.

P. S.—Just as this goes to mail, a letter from New York gives information of the recent sale there of a group of mines upon Hazleton Mountain, the Ingersoll tunnel and the abandoned Greene smelter at Silverton, for the sum of $250,000, all told.

REBUILDING OF A BLAST-FURNACE STACK WITHOUT BLOWING OUT.*

By Hr. Burgess.

In the early part of 1878, No. 1 furnace, at the works of the Bochum Verein, was found to be extensively damaged in the upper part of the stack, from the action of the gases, and it was decided to remove the lining nearly down to the level of the boshes, and replace it with a new one of small bricks. The furnace, which is 72 feet high, 21 feet diameter in the boshes, and had been blowing for two years, was not put out of blast, as the hearth and boshes were in good condition; but would probably have required replacing if they had been allowed to grow cold; and also the delay would have been considerably greater than actually took place, the repairs having been executed in twelve days.

At the time of the stoppage, the furnace was on Bessemer pig-iron, and, in order to expedite the cooling, the burden on the last day was reduced to one containing only 25 per cent of iron, the other materials being so proportioned as to give a tolerably fusible slag. The final eight charges consisted of 2¾ tons of coke and 9 tons of gray slags. The furnace was then allowed to work down until a depth of 49 feet below the shaft was emptied. At the last cast, very little iron was obtained; but it was accompanied by a large quantity of black and glassy slag.

About 10 tons of gray metal slags, which fall to powder when cooled, were next charged upon the top of the column of materials in the shaft. This was in places at a low red heat with the coke glowing brightly, and the charging bell was lowered on to the top of it. Eight holes were then cut through the walls of the furnace, with a view of expediting the cooling by the influx of cold air. The effect produced was, however, the reverse, as the combustion of the coke became more active when the air was admitted; the holes were therefore closed up again, and a further quantity of powdered slags was introduced, until the covering was from 1 to 2 feet thick, when the temperature at the tunnel head became quite bearable.

A sheet-iron funnel with a long tube 15 inches in diameter was next introduced into the empty space, to one end of which were three Korting's exhausters, each supplied with steam by three ⅝-inch jets, for the purpose of removing the furnace gas and supplying fresh air, an arrangement that was perfectly successful in practice. The damaged brick-work, as it was broken away, was removed by five windlasses at the furnace top, each worked by four men, one of whom filled the materials lifted into barrows and removed them to the lift. From eight to ten men were employed in the furnace, and they did not experience any inconvenience or discomfort from heat or bad air, this part of the work being preferred to that at the furnace top. From 3½ to 6½ feet in height of the lining was removed per shift. Below 8 feet from the furnace top, the men worked upon a suspended staging, which was lowered progressively; subsequently, two holes, of about 10 square feet area, were made in the furnace wall, and two plates of the iron jacket were removed at the depth of 49 feet from the top, so that the materials could be got rid of without the necessity of lifting them through the whole height of the furnace. The new lining was carried out with small bricks in the ordinary way of walling, and was finished in ten shifts.

In filling the furnace when the repairs were completed, the bell was lifted about 7 feet at a time, and the space charged from baskets by hand, until the column was within 20 feet of the top, when it was replaced in its proper position and the ordinary method of charging from barrows was resumed. When the blast was turned on, and the smelting recommenced, the charges went down regularly without any sign of scaffolding. In eight days, the furnace had resumed the full make of 50 to 60 tons per shift.†

The damage done to the lining by the gases was first perceived at a depth of 20 feet from the top, where the bricks became rotten and brittle, and were scoured out by the descending charges into large holes, one of which, at 20 feet depth, was 6½ feet across. Lower down, the section of the stack was fairly well preserved, but the bricks were completely rotten except for an outside portion of from 2½ to 4 inches, which remained sound. The damaged portions were covered with innumerable circumferential cracks, as though they had been split by forces acting from the inside. The color was a bluish-gray, and the interior cavities were filled with concretionary substances, varying from the size of a pea to that of a bean.

The furnace is still in blast and working satisfactorily, a period of fifteen months having elapsed since the repairs were made.

PRUSSIAN STATE RAILWAYS.—The Prussian Minister of Commerce has stated that the government does not intend to continue the purchase of railways. The ministry first wants to see whether the state railways will be successful and will increase the state revenues. An additional reason is, that the state is already in possession of all lines that are strategically important.

ORIGIN OF THE WORD TRAMWAY.—The London *Engineer* says that, as an illustration of the different significance gradually acquired by technical names, the word "tramway," the name by which street railways are now generally known, is a corruption of "Outram roads," the name given about the year 1800 to the cast-iron railway supported on stone blocks, and made by Mr. B. Outram, "tram-roads" being the form subsequently assumed for brevity's sake.

*Abstract of a paper in the *Oesterreichische Zeitschrift für Berg- und Hüttenwesen*, xxvii., p. 499. From the Proceedings of the Institution of Civil Engineers of London, edited by James Forrest, Secretary.

† 500 to 600 tons in original.

PROGRESS IN SCIENCE AND THE ARTS.

Technology.

Another Richmond in the Field.—It would appear that we are only at the threshold of the "Artificial Diamond" controversy, from what the daily press gives us to understand. The latest news apropos of this subject comes to us in the form of a letter from Prof. Maskelyne, of the British Museum, to the London *Times*, announcing the entire success of a new claimant to the honor of producing the diamond by artificial means, namely, Mr. J. Ballantyne Hannay, of Glasgow, a Fellow of the Chemical Society of London. Prof. Maskelyne states that he received from Mr. Hannay some crystallized particles presenting exactly the appearance of fragments of a broken diamond, and which easily scored deep grooves in the polished surface of a sapphire. The following statement is quoted from Prof. Maskelyne's letter to the *Times* in his own words:

"There is no doubt whatever that Mr. J. Ballantyne Hannay has succeeded in solving the problem, and removing from scientific chemistry the opprobrium so long adhering to it; for, whereas the larger part of the great volume recording the triumphs of that science is occupied by the chemistry of carbon, this element has never been crystallized by man (?) [Prof. Maskelyne here evidently overlooks the fact that carbon has been beautifully crystallized from cast-iron and aluminium in the form of graphite.—ED.] till Mr. Hannay achieved the triumph which I have the pleasure of recording to-day.

"His process for effecting this transmutation is hardly less momentous to the arts than to the possessors of a wealth of jewelry. It is on the eve of being announced to the Royal Society."

Technical Notes.—The borings in the newly-discovered *petroleum region of Hanover* have now reached a depth of 600 feet, and mining experts are so sanguine over the results obtained that they already predict the existence of a basin as large and as rich as that of Pennsylvania.——To give *porosity to vulcanized rubber*, a German process involves the addition to the material, simultaneously with the sulphur, of 10 or more per cent of wood cellulose; the other properties remaining the same.——The *iron tools in glass-works* are affirmed to be much improved by being nickel-plated. They are not only better protected agaist rusting, but the glass does not adhere as strongly to their surfaces as to plain iron. The claim is also made that pressed work made in nickel-plated molds is sharper and smoother than in common molds.——To *silver ivory*, it is recommended to immerse it in a weak solution of chloride of silver (in cyanide of potassium or hypo?), where it is to remain until it has acquired a deep yellow color. It is then removed, dipped in water, and exposed to sunlight until it has blackened. By rubbing the blackened surface it will acquire a silvery burnish.——His Majesty the King of Belgium has caused to be announced to the Department of State the fact that the subject for the annual prize of 25,000 francs, established by him for the promotion of works of intelligence, will be on "The Best Modes of Constructing Harbors on Low and Sandy Coasts." The prize is open for general competition, and contributions from American engineers may be transmitted through the Department of State. The prize subject above announced is for the year 1881, and all communications must be in not later than the close of the present year.——General Ruggles has revived in modern dress the old idea of Professor Espy—"the storm-king" of our fathers—of producing rain-fall to order by violent atmospheric concussion. Espy's idea was to produce rain by immense discharges of artillery. Ruggles proposes to send up balloons charged with dynamite into the cloud regions, where they would be exploded either by time fuses or by electrical means through the wires connecting them with the earth. He asks for a small appropriation to be expended under the direction of the Commissioner of Agriculture to test the feasibility of the plan.

Statistics of Siemens's Regenerative Gas-Furnaces.—A comparative statement of the introduction of these furnaces for the years 1878 and 1879 will show what progress has been made. The following figures were specially prepared for us by Messrs. Richmond & Potts, United States Agents for the Regenerative Gas-Furnace, and may therefore be looked upon as authoritative, namely:

Total number of Siemens furnaces in the United States, exclusive of a few used in melting glass and in zinc and chemical works, at the close of 1878, 195; 1879, 208. They are to be classified as follows:

	1878.	1879.
Heating and puddling	116	129
Open-hearth steel-melting	33	40
Crucible steel-melting	46	39

The furnaces erected in 1879 were 21 in number, divided as follows: Heating and puddling, 13; open-hearth steel-melting, 7; crucible steel-melting, 1.

Owing to the advantages possessed in the open-hearth process, but little or nothing is doing toward increasing the crucible-steel capacity, as the above figures will indicate.

The capacity of the crucible furnaces (1879) is 40,000 gross tons per annum.

The capacity of the open-hearth furnaces (1879) may be taken at 200,000 gross tons per annum, an increase in productive capacity of 60,000 tons over the year 1878.

One crucible furnace, which had been used for making ferro-manganese, was altered into a heating furnace during the year just past.

Water as Fuel.—Mr. William C. Conant contributes to the *Popular Science Monthly* an instructive popular article, under the above title, in which he sets forth the great advantages to be secured from the substitution of "fuel-gas," by the Lowe and Strong processes, for coal and other forms of solid fuel, for heating, either for domestic purposes or for metallurgical uses.

He records with satisfaction the interesting success that has followed the introduction of the process in Sweden, by Mr. George W. Dwight, the representative of the American patentees. The subject seems to have excited extraordinary interest among the intelligent classes of that nation, which presents the singular anomaly of a nation destitute of coal, at the same time pre-eminent for its manufactures of iron.

The Classification of Steel adopted by the famous Société Cockerill, of Seraing, Belgium, for the steel products made at that establishment, is

given as follows: "All steel containing from 0·05 to 0·20 per cent carbon is graded "extra mild." This quality has a tensile strength of from 25 to 32 tons per square inch, and an elongation of from 20 to 27 per cent in 8-inch bars. It may be welded, but will not temper; and it is chiefly employed for ship and boiler plates, wire, nails, etc. The second grade includes metals ranging in carbon from 0·20 to 0·35 per cent. They have a higher tensile strength, varying from 32 to 38 tons per square inch, and are less ductile, the elongation being about 15 to 20 per cent. It hardens little, and can scarcely be welded. It is used principally for rails, axles, tires, and guns. The third grade is "hard steel," embracing metals having carbon from 0·35 to 0·50 per cent. The tensile strength of this grade varies from 38 to 46 tons, and the elongation between 15 and 20 per cent. It will not weld, but may be tempered. It is used for rails, tires, springs, guide-bars of steam-engines, spindles, hammers, etc. A fourth grade includes the hardest steel, having carbon from 0·50 to 0·68 per cent. It has a tensile strength varying from 46 to 51 tons, and an elongation of from 5 to 10 per cent. It will not weld, but takes an excellent temper; for which reason it is used for various cutting tools, files, saws, delicate springs, and the like.

The American Society of Mechanical Engineers.—The initiatory steps were taken on the 16th of February, in this city, looking to the formation of a National Society of Mechanical Engineers. A meeting with this object in view, which had been called at the instance of Professors Thurston, Trowbridge, and Sweet, and other prominent mechanical engineers, was held on the above date, and was numerously attended. A draft of a series of by-laws and rules for the organization and government of the new association was read and referred to a committee. It sets forth that the object of the association will be to enable mechanical engineers to meet and compare notes, and to facilitate the interchange of ideas respecting improvements in the various branches of mechanical science by the publication of papers, etc. The title heading this "notice," was finally selected as the name of the new society. This is the first effort to form a distinctively "mechanical engineers'" society in this country, though nearly all the prominent members of that profession are identified with other societies.

LABOR NOTES.

THE LABOR QUESTION.—On the 25th inst., the striking miners at the Drummond colliery, in Nova Scotia, left the company's houses and occupied vacant houses in the village of Westville. They say that, if their demands are not granted, they will ask increased pay in the spring. One hundred and fifty men are idle at the Londonderry iron mines, owing to a strike of the puddlers.

CINCINNATI, O., Feb. 22, 1880.—A dispatch from Lonaconing, Md., says: "Yesterday afternoon, another meeting of coal operators and miners was held in regard to a compromise; but the miners, knowing that the operators had large contracts in the West which could not be canceled, held firm; in consequence of which the Kountz, Maryland, George's Creek, Franklin, and Phœnix miners will go to work to-morrow at sixty-five cents per ton, the price demanded. All other mines have refused to accede to the demand."

A second dispatch says that all of the mines which yesterday refused to accede to the demands of the miners this afternoon gave their employés notice to resume work at the price demanded, an advance of fifteen cents per ton on former rates. There is great rejoicing among the miners at their success.

ST. LOUIS, Feb. 23.—Labor troubles are assuming alarming proportions here, and there is a general disquietude prevailing, more or less, in all branches of labor. The coal miners in the Belleville district are also uneasy.

A dispatch from Altoona, Pa., dated February 26th, says that the miners in the Clearfield bituminous coal region are still out. They had been receiving 50 cents a ton, and now demand 60 cents. The output of coal from this region is very large, and the inconvenience resulting from this strike is likely to be very serious.

BURNING OF A COAL-BREAKER.—POTTSVILLE, PA., Feb. 26.—The coal-breaker at Mount Carmel, owned by Montellus & Co., of Philadelphia and New York, was burned this morning. Estimated loss, $35,000; insurance unknown.

GENERAL MINING NEWS.

ARIZONA.

CENTRAL ARIZONA.—The *Miner* says:

"Only 20 stamps are now running on Vulture ore. The mill is now known as the Central Arizona Company's mill. The Vulture mine will soon have an 80 or 100-stamp mill erected at the mine, to which water will be taken in 11 miles of six-inch iron pipe."

GOLD HILL CONSOLIDATED MINING COMPANY.—The San Francisco *Stock Report* says:

"This is one of the solid companies of Arizona, its property consisting of a ten-stamp mill and five of the most promising gold mines in the territory, including the California mine, which has already produced such marvelously rich ore. The working force is to be largely increased, and the mill started up at once. The company is entirely free from debt. The stock is very closely held, none having been sold outside of Philadelphia."

HEAD CENTER.—The *Citizen* says:

"This mine is attracting unusual attention on account of the rich ore taken out of the new shaft. That now being taken from the bottom of the shaft shows horn-silver and gold plentifully."

MINERAL LAKE MINE.—The *Miner* of February 13th says:

"This mill, after a run of about a month, in which time it has turned out about $30,000, has closed for a clean-up, but will resume on better ore in a few days."

MCCRACKIN MINE.—Both the McCrackin and Signal mills are running on tailings and doing well.

The Miner's Hope mine is said to show two feet of solid $300 ore, besides a goodly quantity of lower grade.

PAPAGO CHIEF.—The *Stock Report* says:

"This mine has recently been sold to the American Flag Gold Mining Company of Colorado. It is situated in the range of hills one half mile north of the San Xavier mines, in Pima County. Rich developments have lately been made from the average body of ore uncovered, and show 15 per cent copper and $24.78 in silver. Such ore would make copper bullion worth about $500 per ton. The mine is easy of access, being only about fifteen miles from the line of the S. P. RR., and with plenty of water and cheap fuel."

PIMA MINING DISTRICT.—The *Citizen* of February 14th says:

"There will shortly be renewed activity in this district, which lies so near Tucson. Many promising prospects have recently been located, and work will soon be pushed on several mines from San Xavier southward. The Esperanza has a new shaft down on a strong six-foot vein nearly fifty feet in good paying ore, and work on the main shaft is to begin at once. Several fine-looking claims near the Esperanza have been bonded by parties from Arivaca and from the East."

SUNSET.—The *Citizen* says:

"The upper shaft of this mine is now down thirty feet, and from a ledge eight feet in width, ore is being taken out that assays very high. During four days last week, assays were made of the ore taken out every day, and the average was $512.21. Upon the new dump is to be seen some of the richest ore in the district."

GENERAL NOTES.

More snow is reported throughout the territory than at any time since 1865.

The *Nugget* publishes a call for a miners' meeting to be held at Tombstone "for the purpose of defining boundaries, adopting rules and regulations, electing a recorder, and transacting such other business as may be proper." The call is signed by 123 persons. It has often been predicted that much litigation would arise over Tombstone property. This action promises to do more toward it than any thing yet devised.

Very rich mines are reported to have been discovered on the east side of the Graham Mountains, in Stockton's Pass, about twenty-two miles from Safford and twelve from Fort Grant.

The *Citizen* says:

"The ledge is two and a half to three feet wide, and traceable for from 1800 to 1900 feet without a break. The assays are very high in gold and silver. The claims are situated on the north side and in plain sight of the main traveled road. The discoveries have created considerable excitement, and many prospectors are flocking there."

The Silver King mine is reported to be looking better than at any time since its discovery. The tailings at the Signal run all the way from $13 to $18 per ton, while those of the McCrackin average about $25. The last clean-up at the McCrackin, from the pans, $4000 in bullion was secured.

The *Miner* says:

"The five-stamp mill of Spear & Breon, in Mineral Park, has turned out the largest amount of bullion for the last eight days of any mill of like dimensions in this territory. The run of eight days amounted to eight thousand dollars, and the next crushing will far exceed the last.

"Gold-dust from the various placer mines begins to show itself in large quantities since the increased supply of water has favored the miners.

"The Contention mill is to start up March 1st."

PROGRESS OF THE SOUTHERN PACIFIC.—SAN FRANCISCO, Feb 26.—Dispatches from the end of the track in Arizona state that the average progress of the Southern Pacific Railroad for 25 working days past has been 10,000 feet, or nearly two miles per day. The road is now 959 miles east of this city, and will reach Tucson in a few days.

CALIFORNIA.

THE BODIE DISTRICT.

We condense from the *Standard* of February 14th:

BELVIDERE.—"The north drift, 400 level, is now in 66 feet, and the west cross-cut 36 feet."

THE BULWER STANDARD MILL.—"The mill started up on Standard ore Saturday evening last, and is working well. It has thirty 800-pound stamps, and its capacity is rated at from 80 to 100 tons of ore per day. The mill has 24 iron pans of the most improved pattern (Eclipse amalgamators, patented last year), twelve eight-foot settlers, two agitators, and two clean-up pans, slum tanks, pumps, furnaces, retorts, and all the necessary paraphernalia of a first-class mill."

DUDLEY.—"The main west cross-cut, 500 level, is in 245 feet; the ground is somewhat harder, being now a heavy block rock, full of clay seams, but it works fairly well."

NOONDAY.—"This mine is looking well, and work is progressing satisfactorily in every quarter. The cross-cut on the 400 level is in 150 feet east. The cross-cut east from the 500 level is in 150 feet. No. 1 vein has been cut in both of these levels. Have connected vein No. 1, on the 300 level, with the winze near the old Noonday shaft, which insures perfect ventilation in all stopes in the mine. The machinery in both mill and mine is working well."

ORIGINAL SUMMIT.—"Are now drifting north and south on the ledge at the 105 level; it carries from six to eight inches of very rich free gold ore; the formation is hard, but indications are good, and prospects of the company favorable for opening up a valuable mining property."

SOUTH BULWER.—"The shaft is now down 500 feet, the ground at the bottom being in bird's-eye porphyry of a very favorable character. There is but little water in the shaft. The Burleigh drills are now at work. The new machinery recently put in works satisfactorily."

SOUTH NOONDAY.—"Shaft down 152 feet; the ground in the bottom is of favorable character. Numerous small strata of quartz and clay, rich in free gold, are continually coming into the shaft from the west. The seam of rich ore cut last week has passed out, and is now on the east line of the shaft."

STANDARD CONSOLIDATED.—"The main shaft has reached a depth of 786 feet. The bottom is at present in very hard rock. The different stopes throughout the mine are looking as well as usual. In the north drift, 385 level, the ledge is 25 feet wide, and yields the usual amount of high-grade ore. The West Standard stopes continue to look well, the ledge being about four feet wide, of rich ore. In the stopes on the Gildea vein, the ledge is 3½ feet wide, and looks well.

"In one sense, and to a certain extent, an embargo has been placed upon information regarding the Standard Consolidated, and hence we are deprived of our usual report from that mine to-day. The mine is yielding large quantities of ore, is now supplying three mills, and is paying its regular monthly dividend of 50 cents per share. Its ore-bodies are large, some of them very rich; but there seems to be some doubt whether or not they continue below the deeper excavations."

TIOGA.—"At the present depth of the shaft, 767 feet, a stringer of valuable silver-bearing ore has been cut. Sinking is still prosecuted with vigor."

UNIVERSITY.—"The work of sinking the new shaft is being pushed vigorously, it now being down 326 feet. The rock is hard, but blasts well. Large seams of clay and quartz are appearing, and a favorable change of ground is looked for."

TUOLUMNE COUNTY.

In a review of mines and mining in the State in 1879, the San Francisco *Mining Press* has the following:

"Tuolumne County has been extremely fortunate of late, and a general revival of mining interests has taken place there during the past few months. Noted in times past for the number and richness of its pocket deposits, this county now adds to its fame in this respect by the production of a little bonanza of $260,000, which amount was taken out at Sonora a few months since with hand-mortars. As a result, prospecting has been the order of the day there, and the neighboring hills have been covered with gold-hunters who have met with varying success, quite a number of smaller pockets having since been found in the same vicinity. Several new mills have been erected in Tuolumne during the year,

some 16 being at present in active operation. A new district called the Olsen is just now causing considerable excitement, the attraction being a large vein of burnt-looking quartz unlike any thing previously found. A town site has been laid out near the spot, and it is reported that a large force of men are to be immediately employed on the mine. The Tioga Silver District, a late discovery in this county, lies so high in the Sierra that all operations have been suspended, and will not likely be resumed before June. The season closed before any considerable developments could be made, but so far as prospected, many of the veins showed promising indications. So many other valuable discoveries and rich strikes have been recently reported in Tuolumne that it may justly be accounted the rising quartz county of California."

GENERAL NOTES.

We condense from the San Francisco *Stock Report:*

"The mines of Osceola District are looking up.

"A nugget of gold weighing 5¾ ounces was recently unearthed in Calaveras County.

"The gravel in the Derbic drift mine, Nevada County, continues to improve steadily as developments progress, and the size and frequency of bullion shipments has of late increased.

"Very rich rock has recently been struck in the North Grover mine, Amador County.

"A new strike is reported near Blue Tent, Nevada County.

"Work has been commenced in the McCann hydraulic on Tunnel Ridge, under the auspices of the new proprietors. Four hundred inches of water are being used.

"The Buckeye Company, Trinity County, is preparing to put in an air-pipe in its tunnel at Bolt's Hill, to be run with a water-blast. The tunnel is now in over 1000 feet, and 500 more are to be run.

"Gold and silver, as well as other metals of value, says the Colusa *Sun*, are constantly being discovered in the Coast Range, and when thoroughly prospected, we believe that rich mines will be found all along.

"At the Champion mine, West Point, Calaveras County, the work of sinking the main shaft 200 feet deeper has been commenced. When completed, the shaft will be 700 feet in depth."

During the past year, mineral claims in California have been approved and patented by the General Land Office as follows: Gravel and placer claims, 52; quicksilver, 4; copper, 4; quartz, gold, and silver, 64.

QUICKSILVER MINES.—From the *Calistogian* we take the following items: "The report that a rich body of ore had been struck at the St. John quicksilver mine, Solano County, proves to be correct. About forty miners are at work."

Shipments of quicksilver for the week ending the 17th were as follows:

Sulphur Bank Mining Company, to San Francisco, 240 flasks.

Great Western Mining Company, to San Francisco, 128 flasks.

Napa Consolidated Mining Company, to San Francisco, 75 flasks.

Fourteen hundred tons of coal were shipped from Antioch last week by the owners of the Empire mine. The demand is constantly increasing.

COLORADO.

CLEAR CREEK AND GILPIN COUNTIES.

We condense from the *Courier* and the *Miner* of Georgetown as follows:

BAKER.—Development work is being actively prosecuted on the Baker mine this winter, and as soon as spring opens it will be in condition for shipping a large quantity of ore. A large and commodious ore-house and blacksmith shop were erected last fall; an engine and hoisting machinery put in, and the mine was never in better condition than now. A level is being driven from the bottom of the shaft, 180 feet below the lower adit, both east and west, and on both sides of the shaft good ore-veins are exposed.

BAXTER.—In the east deep workings, in the deepest place on the lode, and deeper than any other mine on Republican or Sherman mountains, there is one foot of solid ore, and in other workings nearly at the same depth, the ore-vein varies from 6 inches to 2 feet of ore that averages 250 ounces silver per ton. The select first class runs from 1500 to 2000 ounces.

BOULDER NEST.—A fine body of ore is exposed on the sixth level of the Boulder Nest mine, and also in a winze that has been sunk from that level.

CASHIER.—Sinking is continued in the main shaft, night and day, the depth now attained being 280 feet. The crevice is 6 feet between walls. This company is also back-stoping in the adit, 200 feet from its entrance in Packard Gulch. The ore being back-stoped, as well as that being raised from the main shaft, is being piled up, awaiting the starting up of the company's stamp-mill in Black Hawk. To this mill will be added a water-wheel—overshot—28 feet in diameter and 5-foot breast, of sufficient driving capacity to run successfully the full capacity of the mill, 35 stamps.

The Clear Creek Company has shut down the leaching department of its extensive works, for the purpose of making some needed repairs, among which is putting in a new battery of stamps. The concentrating works will run as usual, and the company continue to buy ore.

COLORADO CENTRAL.—The new pumping machinery has been placed in working order, and soon the workings below the Marshall tunnel level will be ready for further developments.

DEMOCRAT MOUNTAIN.—A new strike has been made. The owners had 2½ tons milled that returned over 1000 ounces per ton. Democrat is looking better than it has for years.

DUNDERBERG.—The third level, or the sixth level from the surface, now shows in its breast the largest body of rich ore yet encountered in working the mine. The vein is from twelve to eighteen inches in thickness, and carries, according to sample assays, from 400 to 500 ounces in silver. The mine throughout has improved materially in appearance.

EMPIRE CAMP.—There are fifty men actively engaged in mining about Empire this winter, and the prospects for next summer are very fine, as a number of leading properties are getting into good pay. The placer grounds on Silver Mountain will be worked extensively the coming season, and the supply of water will be abundant. Aorta tunnel is driven by two shifts, and is approaching the mines as rapidly as the nature of the rock will permit, the breast being now in the porphyry casing of the belt; it is now in 1100 feet, with about 90 feet to run to strike the first lode—the Livingston County.

The Free America mine has improved materially of late. In several places, the stopes now show ore where none has been seen before, and, although the ore is somewhat mixed with rock, it is of good quality, milling in the neighborhood of 200 ounces per ton.

The Pioneer mine has been improving steadily during the past summer, as developments have progressed in the lower workings. The mine pays dividends as regularly as a national bank, and if it had a 100-stamp mill instead of a 16-stamp mill, it would be one of the great mines of the country.

INDEPENDENCE.—The lessee of this mine has a force of ten men employed, who are stoping over the adit level and driving the adit ahead. The stope from mill-holes No. 5 to No. 9, a distance of about 200 feet, is being worked, the ore-vein ranging from two to ten inches in thickness, and solid. The last mill-run, made last week, the ore being dressed into one class, returned 219 ounces per ton, but only a small part of the ore mined is being sent to the mill, as the lessee prefers to wait until spring when it can be sent down in wagons instead of by pack animals. The mine, since discovery, has produced over $300,000 net.

KOHINOOR.—This mine, on the western slope of Columbian Mountain, about 300 feet in perpendicular height above the wagon-road that skirts the base of the mountain, is in a position highly favorable for economic development. This consists of a cross-cut tunnel 330 feet in length, and a shaft 220 feet deep, connecting with the breast of the same. In addition to this, the lode has been opened by 100 feet of drifting on the tunnel level, and a like distance in the levels above. The lode on the tunnel level, as far as opened, shows it to be a strong mineral vein, classified by miners as a sulphuret lode. The discovery-shaft is nearly vertical for 220 feet, and stoping has been done on each side of it at intervals, $50,000 having been taken out in sinking the shaft, and in the small amount of stoping done on the sides. The last run taken out west of the shaft milled 309 ounces of silver per ton. From this level up, for fifty or more feet, a body of ground west of the shaft has been stoped out. This carried ore ranging in silver contents from 100 to 500 ounces per ton. Traces of carbonates of copper are quite common. In point of accessibility and ease of development it has claims second to no other property in the county, and every foot of its workings show it to be a strong, continuous, and highly valuable ore-deposit.

MAGNET AND SEQUEL.—These mines are again coming to the front, and are expected to assume their old rank by producing their former amount of rich ore. They have a good streak of ore that mills 200 ounces per ton. They are also drifting in the upper level, which is some 60 feet above. They are in 175 feet, and have a six-inch streak of 222-ounce ore.

The Shively mine is getting into big pay as the 75-foot level progresses westerly. The ore-vein is from one to four inches in thickness, and the work of three men at drifting for two weeks produced $525.45, net, the ore dressed into one class milling 343 ounces.

The Stevens mine is working a force of thirty men, and producing from 75 to 100 tons of ore per month.

WHITE MINE.—There is said to be more ore exposed in this lode at present than at any previous time in its history.

LAKE COUNTY AND VICINITY.

We condense from Leadville papers as below:

MINES AT THE HEAD OF BIG EVANS.

THE ALPS.—"This mine was recently sold, together with all the claims on each side to F. Prentice & Co., of the Alps Consolidated Mining Company, of New York. F. A. Prentice and G. L. Havens have since had charge of the property. Three shafts are now being sunk on the Alps consolidation. No. 1 is down about seventy feet and has reached the iron capping the mineral contract. The No. 2 shaft, farther up the hill, has reached a depth of a little over thirty feet, while No. 3, still higher up the hill, is down seventy-two feet, and is in four feet of a hard carbonate that looks very encouraging. It is dipping strongly into the hill, and is regularly defined against the contact above. The three other claims owned by the company are the Alps No. 2, Helvetia, and Columbia, all on the same zone lying parallel, in a southwest and northeast direction, and are located in the sag between Breece Hill and Bald Mountain. All the claims are full locations, have clear titles and first-rate prospects."

THE TENDERFOOT.—"This is on the mesa or bench on the north side of the gulch near the head. The mine has, judging from the number of transfers of interest in it lately put on record, grown largely in speculative favor. The shaft is seventy-six feet deep; at sixty-two the contact was struck and about two feet of ore which was followed by a stope for a short distance, the mineral streak widening. The shaft was sunk to the present depth and a drift run to the body cutting it and exposing over twelve feet in the breast. The carbonate gives good returns in silver and lead, some of it very rich. The galena is dark fine grain, carrying the usual percentage of lead from forty-five to seventy, and as much in specimen assay as four hundred and eighty-one ounces in silver to the ton."

"The Ella Morgan is just beyond the Tenderfoot, on higher ground, and farther up the hill. It has a larger dump of not quite such good looking ore, and more extensive works. The two mines are very similar in many respects."

LITTLE EVANS GULCH.

"The Blakeley has a shaft 150 feet deep. A body or, rather, a seam of mineral, sandwiched between porphyry walls, has been struck at a depth of 110 feet.

"Ida May has a shaft 22 feet deep that has developed a vein about five feet wide, with granite walls. The assays made have all given returns of gold."

LIBERATOR.—"The shaft, which is 90 feet deep, after passing through 10 feet of mineral that gave assays of from 35 to 206 ounces of silver to the ton, was driven through a lime floor, after which porphyry was again encountered, and passed through to the second contact. The depth of the contact had not yet been determined."

LITTLE CASH.—"Contact has been struck on the 120-foot shaft."

LITTLE HARRY.—"This is the most promising property near the point of timber-line. A prospect drill disclosed the existence of two mineral bodies in a depth of 175 feet, after which it was taken out to allow the sinking of the shaft. The shaft is now 165 feet deep, and it is estimated that ten feet farther will disclose the first body. There are several fissure locations in this section, but the developments have not been extensive enough to determine great results."

COLORADO PRINCE.—"The improvements put upon this property are very extensive. Over four thousand tons of ore are already mined and on the dump, awaiting treatment. This ore is said to be very rich in gold, and the owners have put up a fine stamp-mill on the mill site at the foot of the hill, in South Evans, just below the mine. This mill is just about completed, and it will be started up in a short time. A tramway has been built from the mine to the mill, over which extend iron rails, and down which the ore will be conveyed in cars."

CULLEN.—"On the Cullen, between the El Paso and Kennebec, the contact has been cut and some fair-looking mineral of low grade taken out. The shaft is 215 feet deep and still being continued."

THE CHRYSOLITE.—"One of the biggest strikes ever made on Fryer Hill," says the Leadville *Democrat*, "was a large pocket of chlorides in the Vulture, one of the Chrysolite consolidation, a few days ago. A specimen shown at the company's office is 12 inches long by 10 inches thick, and weighs at least 50 pounds. It is a solid mass of chloride of silver, portions of it almost translucent, and testing 75 per cent silver. This is the highest returns from so large a piece of ore yet made in Leadville, and should it run into a regular streak, such as occurs in the Highland Chief and Robert E. Lee mines, the possibilities for the Vulture would be enormous."

DEVLIN.—"The shaft is reported to have struck contact at a depth of 216 feet."

EVENING STAR.—"The manager states that the property never looked so favorable as at present. In addition to the upper shaft reaching a body of sand carbonates at 280 feet, prospecting drifts from the old workings are showing up large bodies of ore. The upper shaft is being timbered at present, and the amount of ore there discovered can not yet be determined. The shaft will be continued fifteen to twenty feet farther, when drifts will be extended."

EL PASO.—"Since putting up the engine, the work on the El Paso has progressed more satisfactorily. The shaft is three hundred feet deep."

THE FOREST CITY.—"This is just across the gulch from the Robert E. Lee mine, and in a 200-foot shaft has twelve or fourteen feet of low grade mineral, mostly iron."

THE GREAT HOPES.—"Nearly two hundred feet of shaft, and half that in levels, have been driven, all of which, after the contact was reached, showed ore carrying both gold and silver."

THE HIGHLAND CHIEF CONSOLIDATION.—The *Democrat* says: "With the exception of the excavation near the intersection of the discovery shaft and the cross-cut tunnel, no work has been done in the Highland Chief but for development. Drifts are extended east to the distance of 70 feet, and from them lateral drifts south for a distance of 30 feet, merely with a view of measuring the ore-body and determining its bulk, dip, and character. Through all these workings no waste ground has been found or dead-work done. The dip is 45° to the east, as shown by the porphyry cap and the streaks of solid mineral that differ from the mass but follow regularly through it. The discovery shaft to the intersec-

tion with the tunnel is 240 feet to where the contact and the mineral by a short drift was first struck. The cross-cut tunnel to this point is about 300 feet. It is essentially a roasting ore; and as the copper makes it suitable for reducing, under Hill's process, to a copper matte, it is shipped to Argo for treatment."

LITTLE PRINCE.—The shaft on this claim was continued on down below a contact of eighteen feet, but recently the owners have commenced drifting at a depth of 243 feet. The result is most encouraging, as a fine body of mineral has been exposed, assays from which have been had of over nine hundred ounces of silver and sixty per cent in lead.

LITTLE CHIEF.—The *Herald* says:

"Some very fine ore has recently been mined from the Little Chief mine. Specimens taken out are covered with wire silver. The mine is producing large amounts of ore and of very good quality, and the fact that it declares a dividend of a hundred thousand dollars the first month it comes under the charge of Mr. Keyes, is evidence of what the mine is. In the main drift from shaft No. 3, running north, is an immense body of milling mineral."

The *Democrat* says:

"A pocket of ore was opened yesterday in the vast body of the Little Chief mine, which eclipses all that has yet been discovered. It is unadulterated, pure wire silver, showing through large pieces of ore that also shows other valuable qualities. Another specimen that was even finer for an average assay was a solid mass of silver glance, or ruby silver and galena. It has, however, the coloring of ruby silver, but more in general appearance of a glance."

THE LOWLAND CHIEF COMBINATION.—The Denver *Tribune* says: "This comprises the Lowland Chief, Lowland Chief No. 2, Curran, and Grand Prize. The property is situated along the northern and western slope of Breece hill, adjoining the Highland Chief consolidated property to the northeast. It has been in litigation for the past year, and all work was stopped, after the discovery of mineral in several shafts, by numerous injunctions. Four months of quiet, persistent work resulted in the reconciling of all conflicting interests and the agreement of all owners to sell at a stipulated price, thus giving perfect title to the entire property of the great combination. A few days ago, the property passed into the hands of S. W. Dorsey and others, of New York, for a consideration of $445,000.

"The Lowland Chief runs parallel to the Highland Chief and only 150 feet from the shaft of the latter mine, whose large ore-body dips directly into the Lowland Chief property. The working shaft of the Lowland Chief is 225 feet from that of the Highland Chief, and is sunk to the same ore-deposit."

THE MODOC.—The *Democrat* says this is an old location on the eastern slope of Carbonate Hill, just beyond the Little Giant, Carbonate, and others. The prospecting shaft was commenced nearly 18 months ago, and sunk between 70 and 100 feet by the original locators. Contact has been reached at a depth of 420 feet, and a body of carbonate, 10 feet in thickness, was run through. Work will be commenced at once in the contact, but sinking will also be continued. Mr. Marten yesterday purchased from Ed. C. Kavanaugh and partners the other half of the mine for a consideration of $500,000. This gives him the entire property.

SCOOPER.—The sale to the Iowa Company having been consummated, work is to be resumed at once.

Says the Leadville *Democrat*:

"There is no reason to fear a scarcity of iron ore, such as is produced at the Breece mine, and valuable to the smelters as a flux. Nearly all the mines in that locality have a body or stratum of iron overlying the better grade of mineral that carries more or less silver, but in no instance, that the reporter is aware of, is it mined except to make a test. The iron body varies in thickness from one foot to twenty, and possibly, from its value as a flux, and the silver contained, it may become, in time, profitable to work it. The Breece ore sells at from $7 to $8 a ton, while the lime-ore or rock used for the same purpose from the quarry in California Gulch, is worth about $14 a ton."

The Denver *Tribune* says under the head of Consolidations:

"The tendency of mine owners at Leadville is to quiet title to properties without recourse to litigation further than to announce their intention to maintain their rights by injunction, and adverse suits as the first steps toward a settlement of the disputes pertaining to title. Hundreds of mine owners have thus come to a fair and square understanding, amicably adjusted differences, and withdrawn suits which promised bankruptcy to the losers, and retarded development, and decreased materially the daily output of the camp. Capitalists have come forward and paid high prices, giving to individuals thus circumstanced larger sums than they could have received for separate mines with clouded titles, and securing for themselves extensive tracts of mineral-bearing ground which have paid the most handsome dividends, along with the return of purchase money. Consolidations have oppressed no one, but, on the other hand, have materially forwarded the general prosperity; first, by donating large cash values to poorer owners; and next, by giving employment to hundreds of miners, and enlivening trade in all branches of business, as well as adding to the fame of the carbonate districts. To the credit of the legal profession it should be added that the counsel of its leading members has uniformly been in favor of compromising and adjusting disputes regarding titles rather than to push legal strife to the bitter end."

SILVER CLIFF ITEMS.

The Chieftain Mine, at Silver Cliff, is 180 feet deep. In the south drift, 120 feet from the shaft, have been discovered two veins of good size and fine appearance. In the north drift, there is an eight-inch vein of spar, black sulphurets, and gray copper.

The Plata Verde mill of one hundred stamps will be put in operation as fast as money can force the building, and the Silver Cliff Mining and Milling Company intends shortly to treble its present capacity. A forty-stamp mill will also be put up at Rattlesnake Mountain.

A full force is now at work on the Sitting Bull. The last ore taken out is very rich.

Work on the Sunrise is going on with energy. A depth of 100 feet has been reached, and, as progress is made, the grade of ore improves, and increases in quantity.

SAN JUAN AND SOUTHWESTERN COLORADO.

The Alamosa *Independent* says: "The Summit mines, on the upper Alamosa, will probably be one of the busiest camps in the San Juan this spring. Prospectors say this is the best quartz region in the State, and the chances are that rich gold and silver mines will be struck. The whole of Summit Mountain seems to be rich in mineral outcroppings. Of all this region, Alamosa is the base of supply.

"A six-foot vein of gray copper, running 463 ounces to the ton, is reported to have been struck in the main tunnel of the Big Giant, San Juan, and the vein has not yet been cut through. The tunnel is in 385 feet.

"A rich strike is reported in the Annie Wood lode, on Engineer Mountain, San Juan."

The Lake City *Silver World* of February 14th says: "We are informed that a very rich 12-inch body of mineral has been struck in the Silver Chord, 15 feet from the shaft in the lower level."

DOLORES DISTRICT.—The *News* gives the following items:

"There is now machinery for two smelters (to operate in Pioneer Mining District) lying at the terminus of the Southern extension of the D. & R. G. Railway.

"The tunnel on the Cross mine is in 150 feet.

"The incline tunnel on the Hope is in 165 feet.

"The Independent lode has a twenty-five foot tunnel, from which some valuable ore has been taken.

"The Witchita lode is situated on Expectation Mountain, just west of Rico, and has a cut of fifty-five feet, and a ten-foot tunnel at end of cut, presenting a heavy vein of carbonate ore. The work is progressing on the mine."

"There are many valuable mines in that district, which only await the arrival of smelters. Smelters will come as quickly as it is possible to transport machinery over the ranges—in May or June next."

A correspondent of the Denver *Tribune*, writing from Rico, says:

"This camp is destined to be the mining metropolis of Southwestern Colorado. Estimates by our best assayers put the large paying carbonate mines at from twelve to twenty-four, and the exploration of the rich belt is but just begun. Three to five hundred persons are spending the winter in Rico—chiefly old miners from Nevada, California, Utah, Arizona, Black Hills, and different sections of Colorado. The Pioneer Mining District can boast of more and richer carbonate mines than could Leadville at the same stage of growth, and has broad fields for the prospector and explorer. The town of Rico is very favorably located on high ground, being some seventy-five feet above the bed of the river. There being quite an area on all sides of the present limits of the town suitable for building, affords a fine location for a large city, which will doubtless be built up here in the near future. The natural advantages for the erection of mills and reduction-works can not be excelled. Quite an amount of machinery now awaits shipment at Alamosa for this point, in which Senator Jones and others are interested; a number of buildings are in course of erection, and considerable interest is manifested in real estate."

GENERAL NOTES.

The Grant Smelting Company has taken up a mill-site of five acres on Rock Creek, on the Gunnison, with the probable intention of erecting a smelter.

In Breckinridge, a rich strike of carbonates has been made half a mile above the Ohio mine.

Sacramento Gulch, Park County, is showing better daily. The district will have three smelters in the next season. Mill runs show the ore to give 26 ounces of lead and about 80 ounces of silver per ton.

Some very rich mines have recently been discovered near Buena Vista, 40 miles east of Leadville.

A smelter is to be erected at Oak Creek, Custer County. There is an almost limitless supply of ore in that vicinity that would pay well to smelt, but is not of high grade enough to ship to Pueblo.

The smelter at Dora is also increasing its capacity, and the owners are greatly pleased with the prospects for business.

At Silkville, in the same portion of Custer County, the Galveston Mining Company is putting up a forty-stamp mill, which gets its water from a spring sufficient in size to supply a small city.

The Oak Creek mines and others in the vicinity of Dead Mule Gulch, some of which are yielding large returns, show large veins of galena. They have steadily gained in richness as depth was attained. They ran only ten ounces on the surface, twenty-nine ounces at a depth of ten feet.

The Lucille, Custer County, employs 20 to 25 miners, blacksmith, foreman, hoisting, shipping, etc. The shaft is now only 95 feet deep, and is worked night and day. The screenings mill 317 ounces per ton.

DAKOTA.

BLACK HILLS PROSPERITY.

The Black Hills *Times* says:

"The bullion production of our bonanza mines is a regular thing. Between $125,000 and $150,000 in gold is cleaned up from the Homestake mills as regularly as the first and the fifteenth of each month comes around. The Father De Smet yields are accordingly rich, but the bullion product of the smaller mines and mills is generally a difficult matter to obtain; but the retorts and bricks from our second-class mines came in so thickly yesterday as to attract general attention. Among the larger of those deposited at our banks recently, was a retort from the Esmeralda mine, valued at over $9000, and a brick from the Caledonia of over $8000. We are unable to learn the mines or mills from which the other roots of all evil came. The Hidden Treasure twenty-five stamp mill pounded out the Esmeralda retort inside of a month. This mine is located on the divide between the Deadwood and Blacktail gulches."

GEORGIA.

The Dahlonega *Sentinel* says: "The gold interest of this section is exciting widespread attention, at home and abroad, and stands forth upon its merits.

"THE BARLOW MINE.—This mine was opened in the year 1866, but for want of suitable machinery and water the work proved unsuccessful, consequently was abandoned. Shortly after, the property was purchased by Mr. S. L. M. Barlow, of New York, and remained comparatively idle from that time until the latter part of the year 1877, or early part of 1878, at which time an arrangement was made with the Hand Gold Mining Company for a portion of the water from its water-ditch, which was carried on to the property by the extension of the Hand Company's water-ditch from Dahlonega, a distance of about six miles, passing Cain Creek gulch through an iron tube some 2500 feet long under a perpendicular pressure of 300 feet at the lowest point. This water is used for mining the ore in an open cut by the well-known hydraulic principle, using a Little Giant for this purpose. The same water used as above is also used for washing the ore through a well-graded sluice-way, 3000 feet to the ore-yard. The water then finds its way into Cain Creek. The ore is then taken from the ore-yard on a tramway 600 feet to the mill, where it is crushed. This mill is of the Frank W. Hall pattern, and was built in the winter of 1878. After running a few months, it gave the owner such satisfaction that he has recently contracted for the addition of 20 more stamps, making in all 40 stamps. Since the introduction of this new pattern mill, Capt. Hall has put up seven mills in this immediate vicinity. There has been lately still another extension of the Hand Company ditch from the Barlow mine, reaching to the town of Auraria, a distance of 2½ miles parallel with the Pigeon Roost belt, there to be used by the Chicago & Georgia Company.

IDAHO.

Prospecting for coal is soon to be commenced in the valley near Boise City.

From the *Enterprise* we take the following respecting the Caribou District:

"Two large mills, one of eighty and the other of forty stamps, will go in as soon as the roads will permit. These mills have been contracted for, and are now on the way, and a twenty-stamp mill is being contracted for by other parties.

"The Robinson, the leading mine in the camp, let contracts two months ago to tunnel the vein at different points along the lead. A tunnel fifty feet south-east of the main shaft cuts the vein-matter 45 feet, the ore assaying from $35 to $800 per ton.

"The ore in the face of this drift is decomposed quartz, and very rich in free gold.

"The eighty-stamp mill goes to the Robinson. The owners of the Oneida will also commence working their ore early in the spring.

"The Black Jack and Florida Hill mines are turning out better rock than they have ever before yielded.

"None of it now extracted will yield less than $100 to the ton.

"New and rich strikes have been made lately in some of the Atlanta mines.

"A bonanza has been struck in the Gold Hill mine at Quartzburg.

"Decomposed rock worth $5 to the pan is being taken out."

BANNOCK.—The *Avalanche* says:

"Twenty-eight tons of rock from the Bannock mine were recently crushed at the Scales arrastra, and yielded $140 to the ton. This mine is not far from the old Ida Ellmore mine."

BLACK JACK.—"Work at the Black Jack and Florida Hill mines is in favorable progress. The joint shaft is down 236 feet below the main tunnel, and indications grow more favorable as the descent is made. About fifteen tons of ore are daily extracted from the Black Jack. There are some twenty men employed at the Black Jack, and eleven at the Florida Hill."

FLORIDA HILL.—"A quantity of rock from the Florida Hill mine was crushed at the Ellmore mill recently, and it averaged over $30 to the ton."

The Montana "is down 140 feet, and is very rich. Four men are working, and are taking out ore worth $150 per bucket."

"The Morton mine is turning out big. The tunnel is now in 200 feet, with gold ore the whole distance. The ore-breast in the face is nine feet wide of rich ore, and is widening as they go in. Very rich ore is taken in the stopes. There are ten men employed."

GENERAL NOTES.

The Bonanza City *Herald* says:

"The Charles Dickens produces a grade of ore that is worth from $1000 to $2500 per ton, and the arrastra, during the running season, yields about $10,000 per month, reducing from one and a half to two tons per day of the average quartz contained in the vein. It has been worked for three years, and shows better to-day than it ever did. It is opened by tunnels and shafts to about 260 feet in depth. The old tunnel is in 500 feet on good ore all the way. The new tunnel, 100 feet perpendicular below the old one, is in a distance of 200 feet, and at this time is advanced in an 11-foot vein of high-grade quartz."

"The Montana mine is yielding much high-grade, the best of it being worth from $2000 to $5000 per ton, most of it gold."

"The Charles's Wain, near the Montana, has a six-foot vein that is nearly all first-class shipping ore."

RAMSHORN.—"The shipments during the past year averaged over 400 ounces silver per ton."

BEARDSLEY.—"Shipments same period averaged 106 ounces silver."

"The Continental has been worked for two years past and is 130 feet, the ore being reduced in the company's arastra."

"The Paradise is worked to a depth of about 150 feet.

"The Hidden Treasure has a 70-foot incline shaft and a level run 60 feet, the vein being about 5 feet with $100 to $150 ore.

"The Idaho has a 75-foot shaft, with 2½ feet of good ore."

MONTANA.

The Alta (Montana) Company has purchased the Custer mine, located on Alta Hill. This purchase gives the company control of 5700 feet of the Alta lode. Extensive developments are being made upon the Alta mine, the last assay of ore from which gave 244 ounces of silver to the ton.

From the Butte *Miner* of the 17th inst. we condense as follows:

ALICE MINE.—"Developments on this property are encouraging and satisfactory. On the second and third levels the company is prospecting by drifts and cross-cuts, with excellent results. Square timbers are being put in and ore is being extracted across the full width of the vein, which is not less than 30 feet wide. On the fourth and fifth levels, the ore-body is improving in extent and richness, and the water has ceased to occasion any trouble. The work of active development is, therefore, continuous. At present, about fifty tons of ore are being hoisted daily, twenty tons being sent to the mill for reduction, and the remainder dumped as second-class ore. The ore at present being worked mills eighty dollars, from which it appears that the daily bullion output is about $1600.

MAGNA CHARTA MINE.—"Work on this mine has been resumed, a contract having been let to complete the tunnel to a distance of 1500 feet, the full length of the claim. The tunnel is now being run in on the side of the ledge, and, at the rate at which it is now being pushed, it will not be long before the entire length of the claim will be made available for working purposes. It is the intention, when the contract is finished, to run a series of cross-cuts to the vein, when a vast amount of ore will be extracted and placed on the dump, to await the completion of the new Alice mill.

BURNETT MINE.—"From the bottom of the new shaft, which is eighty feet west from the point where the tunnel and first level unite, a new level has been started in an eastward direction, and has already penetrated the vein to a distance of thirty-five feet within the past two weeks. The ground being soft, no blasting is necessary, it being an easy matter for the miners to make from three to five feet headway each day. The ore-vein on this level is six feet wide, but is not remarkably rich, as the level verges on to the water-line. The present daily output is about twelve tons, which is worked at the Centennial mill.

GAGNON MINE.—"Operations on this mine continue. It is calculated that about next Tuesday the main shaft will have attained a depth of 225 feet, or 75 feet below the third level.

CZAROMA MINE.—"Work has been temporarily suspended, awaiting the arrival of a No. 10 Knowles pump, which will soon be started in operation, when the work of development will be resumed with renewed vigor."

NEVADA.

The rumor that the bonanza firm has acquired control of the Sutro Tunnel, and Mr. Sutro was to retire from its management, is denied by Mr. Mackay.

The *Enterprise* of February 13th says:

"At the Quinn Mine, Spring Valley, below Silver City, they yesterday cut into genuine black sulphuret ore of the richest character. The ore is not only rich in black sulphuret of silver, but also shows native and ruby silver.

"This is no drill-hole business, but a genuine strike, and one that promises to prove of great importance. The finding of such ore near the surface is proof that the vein possesses great strength and vitality.

"This rich ore is found at a depth of but 100 feet beneath the surface, a depth at which we should hardly think we were through the scalp of the country at this end of the Comstock. Indeed, at the Quinn mine, paying ore is found quite up to the surface.

"That the vein has great strength is evident from the fact that at the surface paying ore was taken out of it for a distance of several hundred feet. Unlike any thing heretofore found in that district, the ore is much richer in silver than in gold.

"Where this strike has been made is 150 feet north of where the last rich ore was found on the surface and under a point where nothing is to be seen on the top of the ground. The Quinn is on a direct line with the Yellow Jacket new works, the Forman shaft and other shafts on the lode, and those who see the ore can not doubt that in it the Comstock has again showed itself—bulged up to the surface, as it were."

The *Times-Review* says: "Quite a number of mining districts in Nevada will come to the front next spring, and all the indications now point to a prosperous year in the Sagebrush State. Eureka mines are looking well, if not better than at any time in the past year, and their output this season promises to be better than in 1879. The Eberhardt and Aurora mines in White Pine have recently given evidence of containing as rich ore as was extracted from them in the flush days of the county, and there are many old White Pine pioneers all over the State who are only waiting for spring to open, to once again shoulder their blankets and start for Treasure Hill. Prospectors are rushing into Columbus District, Esmeralda County, and the various districts in that part of the State are likely to satisfy the expectations of the most sanguine before the close of the present year. Among the most prominent camps in Esmeralda County, may be mentioned Columbus, Candelara, Bellville, Marietta, New Boston, and Silver Peak, all of which, except Bellville, have one or more promising mines. Como District has recently been attracting considerable attention, and it is likely soon to attract more. It was deserted in 1865, and but little has been done in the way of prospecting its mines until within the past few months. At present, there are about seventy-five miners at work in the district, all of whom are working claims which prospect well. Osceola, Frisco, Silver Reef, and various other mining camps in or close to Nevada, give fine promise.

HILLSIDE.—The Pioche *Record* of February 14th says:

"A rich strike was made in the Hillside mine, at Bristol, the latter part of this week. A large body of high-grade ore was encountered in the sinking of winze No. 1, from first cross-cut, thirty feet from the incline on west 7th level. The trend of the vein seems to be north and south. The ore is different from any ever seen in the district, being of a dark color and resembling waste, but on close scrutiny the rock is seen to carry a great deal of antimonial silver, and heavy in lead. Assays of the whole ore-body average $864; sample assays going up in the thousands. The extent of the ore-body has not yet been ascertained, as no walls have been found."

COMO ITEMS.—The Lyon County *Times* of February 18th says:

"The May-Day Company is vigorously prosecuting work on its mine. The ledge is 100 feet in width, and carries a four-foot streak of ore, which assays from $43 to $1187. The Birdsall mill will soon begin crushing some of this ore.

"The Birdsall mill started up on North Rapidan ore last Saturday, and Welter's mill began working ore from the dump of the same mine last Sunday.

"The Chieftain Company will resume work on the 1st of March."

UTAH.

BINGHAM DISTRICT.—A correspondent of the Salt Lake *Tribune*, under date of February 16th, says:

"Many of our mines are closed down, on account of the heavy snows, which have completely blocked up the roads, and three ten snow-slides in the mountains.

"The Nask mine is working eight men. A recent shipment of ore from this mine carried sixty per cent of lead.

"The Red Cross has four men at work. The tunnel is in 130 feet.

"The Howard has two men at work drifting on the vein which is about three feet between walls. The ore averages about $50 per ton."

SILVER REEF.—The Barbee mill, which was destroyed by fire on June 23d last, has been rebuilt. The new mill has a capacity of forty tons per day.

PARLEY'S PARK.—The *Park Mining Record* of February 14th says:

"A good body of coal has been struck in the Excelsior mine, located about one mile from Coalville.

"The Utah mine, a westerly extension of the White Pine, is being prospected by a tunnel 130 feet long, from which an incline shaft at an angle of nearly 45° has been sunk 155 feet. A rich body of ore has been found, and cut into at right angles with the course of the vein. How wide the latter will extend is not known. Larger machinery has been ordered."

The Silver Reef *Miner* says: "The completion of the Utah & Pleasant Valley Railroad will bring out of that valley the best coke probably to be found in the country. The value of such a deposit of coking coal is only appreciated by those who have had to buy coke brought from Connellsville, Pa., at $26 to $30 per ton, for smelting and other metallurgic work in Utah."

PROPOSALS.

For the benefit of many of our readers, we compile weekly such proposals and solicitations for contracts, etc., as may be of interest. The table indicates the character of proposals wanted, the full name and address of parties soliciting, and the latest date at which they will be received:

For Sewer; Fred. A. Twamley, Office of Public Works, Grand Rapids, Mich.	February	28, 1880.
For the Purchase of Wrecked Light-Houses; Office of Light-House Engineers, Fifth District, Baltimore, Md.	"	28, "
Dredging the Manistee River; Ramsdell & Benedict, Manistee, Mich.	March	1, "
For Building a Court-House; T. W Ostrander, Esq., Jefferson, Wis.	"	1, "
Alterations and Additions to State House; C. E. Kemble and A. Peebles, Joint Architects, Charlestown, Kanawha Co., West Va.	"	1, "
For Leasing or Buying the Rolling-Mill and Furnaces situated in Allegheny City; John Scott, Manchester Iron and Steel Company, 61 Fourth avenue, Pittsburg, Pa.	"	1, "
For Finishing and Completing the New Court-House of Eureka; E. R. Dodge, Clerk of Board of Commissioners of Eureka County, Nev.	"	2,
Tenders for Construction of a Railway in the Island of Ceylon, 41½ miles; tenders, sealed and indorsed, "Tender for Nanu-oya RR.;" Penrose G. Julian, Crown Agent for the Colonies, Downing street, London, Eng.	"	3, "
For Water Gates and Fire Hydrants; W. Scott Fritz, President St. Joseph Water Company, St. Joseph, Mo.	"	3, "
For Pumping Machinery; W. Scott Fritz, President St. Joseph Water Company, St. Joseph, Mo.	"	3, "
For Dredging in the Patapsco River; U. S. E. Office, No. 70 Saratoga street, Baltimore, Md.	"	4, "
For Proof-Chain for the Great Kanawha River; Thomas Turtle, U. S. E. O., Charlestown, Kanawha, Co., West Va.	"	5, "
For Remodeling Engine-House; C. B. Knight, Niagara Steam Fire-Engine Company, Pittston, Pa.	"	9, "
Grading, and all Work Embraced in Ballasting the Riviere-du-Loup Branch; D. Pottinger, Chief Superintendent, RR. Office, Moncton, N. B.	"	10, "
For Grading, etc., etc., on the Quebec Central Railroad; Bowen & Woodward, Sherbrooke, Ont.	"	10, "
For Artillery Horses; Department Quartermaster's Office, cor. Houston and Greene streets, New York City.	"	10, "
For Sinking Artesian Wells; Charles M. Leonard, Mayor, Galveston, Texas.	"	10, "
For the Construction of Sewers; Frank Pelton, City Engineer, Des Moines, Ia.	"	13, "
Bridges; J. P. Jones Lee, Auditor's Office, Lucas County, Toledo, O.	"	15, "
For Construction of Field Officers' Quarters; Alex. F. Perry, Deputy Quartermaster-General, Governor's Island, New York Harbor.	"	19, "
Iron Superstructure for Chaudière Bridge; P. A. Peterson, Chief Engineer, 16 St. James street, Montreal	April	1, "
Rolling Stock; F. Braun, Secretary, Department of Railways and Canals, Ottawa.	July	1, "

ASSAY DEPARTMENT OF THE ENGINEERING AND MINING JOURNAL.

This department is opened for the benefit of miners, prospectors, and others interested in minerals.

Replies will be made in these columns, and *without charge*, to questions asked regarding the nature and commercial value of minerals, and of samples sent.

Assays determining the actual composition and value of ores will be made at the following rates. All assays are made with the utmost care by the most experienced and competent assayers:

Assay for gold	$3.50	Assay for copper	$3.00	Assay for iron	$4.0
" silver	3.00	" lead (wet)	3.00	" nickel and	
" gold and silver	5.00	" zinc	5.00	cobalt	10.00

The amount should invariably accompany the order, and expressage or postage must always be prepaid.

Communications, samples, etc., to be addressed to

ENGINEERING AND MINING JOURNAL, 27 Park Place, New York
(P.O. Box 4404.

FINANCIAL.

Gold and Silver Stocks.

NEW YORK, Friday Evening, Feb. 27.

The week under review has been a very quiet one, and prices have been very much demoralized, largely owing to the great break that has occurred in Little Pittsburg and the unsettled political outlook in San Francisco. Mining stocks in this market have been a little too steady to be attractive to speculators. This depression will probably lay the foundation for an advance and activity, which will make this class of stocks more attractive.

For the advancemnnt of mining, the Mining Trust Co. and American Mining Stock Exchange has been organized. The first 200 seats, which only give a broker's privilege, will be sold at $1000 each. The next 300 will be sold at $5000 each, and will entitle each of the holders to one share in the Trust Company. The remaining 300 seats will be held in reserve until January 1st, 1881, the Trust Company reserving the right to sell the accompanying shares at not less than $4000 each, in which event the brokers' seats will be held at $5000. It is said that transactions will soon take place in the new Exchange, although the Trust department may not open until May 1st. A full list of the members of this Exchange will enable us to form a better opinion as to whether it will prove a benefit or an injury to the mining business. Great care should be taken in the selection of members as well as mines.

The Bodie stocks have been quiet. while the better class of them have been weak. Bodie records sales of 440 shares, at $9¼@$8½. Standard has been quiet and weak, the sales amounting to but 1635 shares, at $30¾@$28½. The Bodie papers say that the management of this mine is surrounding it with mystery by refusing the privileges previously given to visitors. We should regret to see this mine, which is so largely owned in the East, fall into the unfair management which has so long characterized Pacific Coast operations. This looks, however, as though it would. The public is entitled to a knowledge of the true condition of a mine, be it good or bad. No management should command public confidence that first lets a ring into or out of a stock, and then advises the public of the condition of the mine. Bechtel declined from $2 to $1.85, with sales of 500 shares. Belvidere sold up to $2.30 on Wednesday and back to $1.90 to-day, the total sales being 250 shares. Bulwer has been but moderately active, the sales amounting to but 1015 shares. The price has been weak, selling from $9¼ down to $8⅝, but recovering to $8¾ to-day. Consolidated Pacific only records 15 shares at $4. Goodshaw was neglected, the sales amounting to but 900 shares. The price has been weak, selling from 32c. down to 25c. On Wednesday, 165 shares of May Belle sold at 22c. North Standard does not record a transaction. We hope we have seen the last of them at $1.85@$2.10. On Saturday, 300 shares of South Noonday sold at $1.80. Since then there has been nothing done. Tioga has been weak, selling from $3 down to $2.85 on sales of 450 shares.

South Bulwer has been very active and strong. The sales amount to 25,500 shares at $1.60@$2.00.

The Comstock shares are gradually lessening in importance in the eyes of the Eastern public, and we are glad to see it. The sales of California amount to 2795 shares at $3.65@$3.40. Consolidated Virginia has been somewhat more active, the sales amounting to 4295 shares at $3.75@$3.55. Consolidated Imperial has been quiet and weak. The sales amount to 2750 shares at 62@53c. On Wednesday, 10 shares of Julia sold at $1.50. Leviathan records 1200 shares at 17@10c. On Saturday, 130 shares of Belcher sold at 12¼@12.

The Tuscarora stocks have been quiet and weak. The sales of Belle Isle amount to but 650 shares, at $1.25@$1.10. Independence records 1800 shares, at $1.20@$1. On Wednesday 100 shares of Martin White sold at 90c. The sales of Tuscarora amount to 2300 shares, at 32@27c.

The miscellaneous San Francisco stocks have been very quiet, as follows: Eureka, 10 shares at $13¾; Tip Top, 310 at $4.20@$4.40, and Caledonia (B. H.), 200 at $2.90@$2.85. This company has levied another assessment. The frequency with which this company levies assessments, now that its mill is completed, entitles the stockholders to a card of explanation from the management. It certainly has a bad look.

Our regular market has been somewhat dull, and considerably demoralized. The dealings have been as follows: Caribou has been steady at $4, but very quiet, the sales amounting to but 300 shares. Central Arizona has been fairly active, the sales amounting to 5120 shares. It has also been stronger than last week at $11¾@$8¾@$9½. Climax has been quite active, but weak. The sales amount to 17,200 shares at $3⅜@$2¾. Findley has been quiet, at 69@65c., with sales of 2900 shares. Deadwood has declined from $19 to $18 on sales of 585 shares. Great Eastern has been quite active and weak. The sales amount to 47,800 shares at 55@45c. Green Mountain has been active at $3@$3.30. Homestake only records 20 shares at $36½. Hukill has been fairly active but weak. The sales amount to 11,925 shares at $4.10@$3.95. La Plata has had a business of 2500 shares at $7¼@$7. Leadville improved a little, and lost it all again. The range has been $3.80@$3.50, and the sales 3990 shares. Little Pittsburg has been the great feature of the week, steadily declining from $21 on Saturday to $13, seller 30, to-day, with sales of 29,660 shares. This looks as though it were a bear movement assisted in a quiet way by insiders who are apparently bulls. The output of the mine has suddenly decreased very much, and still the reports from the office are that the mine has large reserves and is looking very well. The past history of some of the insiders would naturally expect one to look for an occasional trick. Moose has been very active and equally weak. The sales amount to 32,205 shares at $1.65@$1.30. This is probably more than the stock is worth, and a greater value than we put on it two years ago. The recent decline in this stock may teach the public to give attention to mines with actual merit, and not to stocks supported by manipulators. It will always be but a matter of time in the latter class of stocks before a crash must come.

The sales of New York & Colorado have been 100 shares at $2.15. Calaveras has been very active and strong. The sales amount to 43,700 shares at $1.15 @$1.60. King's Mountain has developed some activity and strength. The sales amount to 5500 shares at 53c.@$1. Mariposa Common records 345 shares at $3.80@$3.50. The Quicksilver stocks have been quiet. The sales of Common have been 1000 shares at 21½@20½, and of Preferred 100 at $65½. Rappahannock has been moderately active, but a little weak. The sales amount to 21,900 shares at 45@40c. Shamrock has been steady at $1.10@$1.20, with sales of 4500 shares. South Hite has been quite active, the sales amounting to 14,800 shares at $2.50@$2.30. Sutro Tunnel has been moderately active at $3⅜@$3¾, with sales of 21,015 shares. Trio records sales of 400 shares at 75c.

The dealings in the fancies have been as follows: American Flag, 5600 at 52@48c.; Buckeye, 44,200 at 61@53c.; Dahlonega, 5900 at 20@18c.; Gold Placer, 31,660 at 42@51c.; Granville, 60,500 at 30@38c.; Lacrosse, 5700 at 48@44c.; Lucerne, 2100 at 19@18c.

The Stormont Silver Mining Company has issued notices to its stockholders, proposing to reduce the capitalization from $1,500,000 to the nominal sum of $150,000. The laws of this State, as regards the personal liability of stockholders, are very discouraging to investors, and we are glad to see this move, as thereby there can be no question of the removal of liability. The Spring Valley Hydraulic Mining Company was the first to adopt a low nominal capitalization, and it found no dificulty in readily disposing of its stock at ten times the nominal capitalization. The par value of a stock, be it of mines or railroads, has no bearing upon the market price. This will be regulated by the ability of the company to pay dividends, and a stock that pays $1 per share per month should sell as high with a $1 par as $100. In fact when the lower capitalization removes personal liability it should sell higher.

At the annual meeting of the Quicksilver Company the following directors were elected: A. B. Baylis, George W. Butts, J. H. Banker, J. D. Smith, S. W. Boocock, Edward Brandon, Charles Fries, B. Wall, Ludlow Patton, David Mahany, and Thomas Shoemaker. David Mahany was elected President; G. W. Butts, Vice-President; A. B. Baylis, Treasurer, and M. M. Weed, Secretary.

W. C. Wilson, general manager of the Little Pittsburg mine, has been succeeded by H. B. Bearce.

OFFICIAL LETTERS AND TELEGRAMS.

Green Mountain.—A telegram received from the Superintendent of this company to-day says: "The new stopes opened from the main level are looking well. Quality of ore good. Breast of the drift in good ore, the usual width 12 feet. The treasury stock of this company has all been taken by the stockholders. The proceeds will be devoted to the erection of a first-class mill of sixty stamps.

Great Eastern.—A letter recently received from this mine, at the company's office in this city, says: "The Great Eastern ledge has 30 feet of vein matter in sight, as shown by the cross-cuts, and neither wall found. This ore resembles that found in the De Smet, Golden Terra, Caledonian, and other mines here. I think the shaft should be sunk 50 feet deeper than it now is, and it should be pretty solid at that depth, whereas now the cross-cuts show it to be very much broken.

Rappahannock.—Mr. Judson J. Embrey, Superintendent of this mine, writing under date of February 20th says: "We are now sinking (at the 85-foot shaft) to a second level, and we have not, thus far, been obliged to do any blasting. The vein continues down in the end of the shaft, *nearly vertical*, and of a uniform width of two feet. It presents the same general appearance, free from sulphurets, and containing *much* visible free gold. Our steam hoister works admirably. The mill building is nearly completed. We are now at work on the tank, and arranging the shafting and footing."

Under date of February 25th, he says further: "Our work is progressing very favorably; we are now down 102 feet. So far there has been no occasion to use any explosives."

Chrysolite.—The new engine started 25th. Mines unchanged. Shipped to smelters 145 tons. Prof. R. H. Stretch visited the mines. He estimates 20,000,000 in sight. The west drift of Chrysolite No. 4 still in sand carbonate. Have just started new machinery. Shipped 123 tons to smelters.

Freeland.—The Superintendent of Freeland telegraphs from Idaho Springs, under date of February 23d, as follows: "Mill running full capacity; Minnie face in splendid ore; stopes looking well; doing nothing in Freeland level drift at present."

Moose.—The Superintendent of the mine has been called to New York to give his report on the mine to the Directors, who will meet to-morrow (the 28th). The report will be furnished to stockholders next week.

DIVIDENDS.

The Chrysolite Silver Mining Company has declared its fourth monthly dividend of two per cent, amounting to $200,000. This company, besides paying for the costly machinery, etc., necessary for commencing work has paid an aggregate of $800,000 in dividends to its shareholders out of the net earnings of the four months it has had possession of its mines at Leadville, Colo.

The La Plata Mining and Smelting Company has declared a dividend of 7½ cents per share, payable on March 1st, and an extra dividend of 5 cents, payable on the 25th inst.

The New York Hill Gold-Mining Company, of Grass Valley, Cal., declared a dividend of 25 cents per share, which became payable on February 20th.

The Excelsior Water and Mining Company, of California, has announced a dividend of 25 cents, payable on the 5th proximo.

The Eureka Consolidated announces a dividend of 30 cents per share.

The Black Bear quartz mine, of California, has declared a dividend of 25 cents.

The Deadwood Mining Company, of Dakota, has declared a second dividend of 25c. per share, amounting to $25,000.

The current Green Mountain dividend will be $6250 and the total paid to date $53,025.

Caribou, when the announced dividend is paid, wil have disbursed $60,000. Father De Smet mine will have paid $90,000, and Little Pittsburg will have disbursed $1,350,000.

The Charleston (S. C.) Mining and Manufacturing Co. has declared a quarterly dividend of $1 per share, payable on and after March 1st.

GENERAL MINING STOCKS.

Dividend Paying Mines.

NAME AND LOCATION OF COMPANY.		Feet on Vein.	Capital Stock.	SHARES. No.	SHARES. Par Val	ASSESSMENTS. Total levied to date.	ASSESSMENTS. Date and amount per share of last.	DIVIDENDS. Total paid to date.	DIVIDENDS. Last Dividend.	HIGHEST AND LOWEST PRICES PER SHARE AT WHICH SALES WERE MADE. Feb. 21. H.	Feb. 21. L.	Feb. 23. H.	Feb. 23. L.	Feb. 24. H.	Feb. 24. L.	Feb. 25. H.	Feb. 25. L.	Feb. 26. H.	Feb. 26. L.	Feb. 27. H.	Feb. 27. L.	SALES.
Argenta, s.	Nev.	1,500	10,000,000	100,000	150	75,000	Jan., 1879	40,000	Feb., 1880 20													
Bassick, s.	Colo		10,000,000	100,000	100			25,000	Feb., 1880 25													
Belle Isle, s.	Nev.	1,500	10,000,000	100,000	100	30,000	Feb., 1880 30	300,000	Dec., 1879 25	1 25	1 20			1 20						1 15	1 10	650
Belcher, G. s.	Nev.	1,040	10,400,000	104,000	100	1,912,800	Feb., 1880 1 00	15,397,200	Apr., 1876 1 00	12¼	12											130
Bobtail, G.	Col.	2,500	1,136,630	227,326	5	*		125,030	Sept., 1879 15													
Bobtail Tunnel, G.	Col.		100,000	20,000	5	52,000	July 1873 0 30	56,000	Dec., 1878 40													
Bodie, G.	Cal.		10,000,000	100,000	100	75,000	May., 1879 1 00	1,200,000	Mar., 1880 25	9	8⅜			9¼	8¾	8¾				8¾	8½	
Briggs Con., G.	Col.		2,000,000	200,000	10			8,000	Dec., 1879 04													
California, G. s.	Nev.	600	54,000,000	540,000	100			31,320,000	Dec., 1879 50	3.65	3.55			3.60	3.50	3.50		3.50	3.45	3.50	3.40	2
Caribou Con.	Col.	1,400	1,000,000	100,000	10			50,000	Mar., 1880 10	4				4								300
Central Arizona, s.	Ariz		10,000,000	100,000	100					11¼	9⅞			10	8⅞	10	9	10	8¾	9½	9	5,120
Chollar, G. s.	Nev.	700	11,100,000	112,000	100	168,000	Mar., 1880 0 50	3,080,000	Feb., 1872 1 00													
Chrysolite, s.	Col.		10,000,000	200,000	50			800,000	Feb., 1880 1 00													
Climax, s.	Colo		2,000,000	200,000	10	*		60,000	Feb., 1880 10	3½	3.05			3⅜	3.10	3.30	3¼	3.20	2.95	3.10	3.75	17,200
Cons. Virginia, G. s.	Nev.	710	54,000,000	540,000	100	474,600	June 1873 3 00	42,390,000	Dec., 1879 50	3.75	3.55			3.70	3.60	3.30		3.60	3.50	3.70	3.55	4,285
Confidence, G. s.	Nev.	130	2,496,000	24,960	100	256,320	Apr. 1878 0 50	78,000	May. 1865 8⅓													
Crown Point, G. s.	Nev.	600	10,000,000	100,000	100	2,323,370	Feb., 1880 0 50	11,588,000	Jan., 1875 2 00													
Deadwood, G.	Dak	1,500	10,000,000	100,000	100			50,000	Feb., 1880 25	19				18¼		18				18		585
Eureka Cons., G. s. L.	Nev.		5,000,000	50,000	100	100,000	May. 1876 1 00	4,000,000	Mar., 1880 30							13¾						10
Excelsior W't'r & M. Co	Cal.	525 acres	10,000,000	100,000	100				Mar., 1880 25													
Father de Smet	Dak		10,000,000	100,000	100			90,000	Feb., 1880 30													
Findley, G.	Geo.		200,000	200,000	1			8,000	May. 1879 1c					67	66	69	65	66				2,900
Gould &Curry, G. s.	Nev.	612	10,800,000	108,000	100	3,152,000	Feb., 1880 1 00	3,826,800	Oct., 1870 10 00													
Grand Prize, s.	Nev.	1,500	10,000,000	100,000	100	220,000	Dec., 1879 0 75	400,000	Feb. 1878 1 00													
Great Eastern, G.	Dak	1,200	300,000	300,000	1			10,000	July. 1879 01	55	54			55	54	53	45	48	46	51	47	47,800
Green Mountain, G.	Cal.	4,350	1,250,000	125,000	10			46,875	Feb., 1880 5	3.05	3			3.10	3.05	3.30	3.15	3.10		3.25	3.10	8,895
Hale & Norcross, G. s.	Nev.	400	11,200,000	112,000	100	3,250,000	Feb., 1880 1 00	1,598,000	Apr. 1871 5 00													
Homestake, G.	Dak		10,000,000	100,000	100	200,000	Apr., 1878 1 00	420,000	Feb., 1880 30							30½						20
Horn, s.	Uth.		10,000,000	400,000	25			200,000	Jan., 1880 25													
Hukill, G. s.	Col.	3,288	1,000,000	200,000	5	*			Dec., 1878	4.10	4.05			4.10	4.05	4.10		4.15	3.95	4	3.95	11,925
Independence, s.	Nev.	1,500	10,000,000	100,000	100	110,000	Feb., 1880 0 30	225,000	Sept., 1879 25	1.15				1.15		1.20		1.05	1	1.05		1,800
Kentuck, G. s.	Nev.	95	3,000,000	30,000	100	300,000	Aug. 1878 1 00	1,252,000	Mar., 1870 5 00													
K. K. Cons.	Nev.	1,200		50,000		500,000	Oct., 1879 2 00	62,500	Sept., 1873 25													
La Plata, s.	Colo							150,000	Mar., 1880 7½	7¼	7			7¼	7	7		7		7		2,500
Leadville, s.	Col.		2,000,000	200,000	10	*		150,000	Jan., 1880 15	3.60				3.80	3.55	3.75	3.60	3.70	3.50	3.60		3,990
Leeds, s.	Uth.	3,000	6,000,000	60,000	100	6,000	Feb., 1880 10	78,000	Oct., 1878 15													
Leopard, L. G. s.	Nev.	1,500	5,000,000	50,000	100	342,500	Sept. 1879 50	162,500	Dec., 1876 50													
Little Chief, s.	Colo		10,000,000	200,000	50			100,000	Feb., 1880 50													
Little Pittsburg, s.	Col.		20,000,000	200,000	100			1,450,000	Mar., 1880 50	21	20			20½	19¾	‡19½	15¼	18	14½	16	13	29,660
Manhattan, s.	Nev.	129,810		100,000		200,000	July. 1879 1 00	400,000	Feb., 1877 1 00													100
Martin White, s.	Nev.	22,900	10,000,000	100,000	100	650,000	Jan., 1880 50	90,000	July. 1879 30							90						
Mgrimac, s.	Mas.	1,500	500,000	100,000	5			120,000	Mar.,													
Modoc.	Cal.	4,000		100,000		450,000	Feb., 1880 0 50	50,000	Dec., 1876 50													
Moose, s.	Col.	39,000	2,000,000	200,000	10	*		550,000	Mar., 1878 25	1.65	1.50			1.70	1.50	1.65	1.50	1.59	1.25	1.50	1.30	32,205
N. Y. & Colorado, G.	Col.		1,000,000	50,000	20	*		25,000	July. 1879 10	2.15												100
Northern Belle, s.	Nev.	1,600	5,000,000	50,000	100			1,500,000	Nov. 1877 1 00													
Ontario, s.	Uth.	3,000	10,000,000	100,000	100			2,600,000	Feb., 1880 50													
Ophir, G. s.	Nev.	675	10,080,000	100,800	100	2,594,200	Nov. 1878 1 00	1,603,200	Jan., 1880 1 00													
Ore Knob, C.	N. C.	1,600 acs.	1,500,000	150,000	10	*		97,500	Dec., 1879 40													
Potosi, G. s.	Nev	700	11,000,000	112,000	100	168,000	Mar. 1880 0 50															
Plumas, G.	Cal.		1,000,000	100,000	10	715,000		151,000	July 1879 8													
Raymond & Ely, G. s.	Nev.	5,000	12,000,000	120,000	100		Feb., 1880 25	3,075,000	Sept. 1873 3 00													
Richmond, s.	Nev.		1,350,000	5,400	25	360,000																
Rye Patch.	Nev.	1,600		30,000		157,500	Dec., 1878 1 00	105,000	Dec., 1877 25													
St. Joseph, L.	Mo.	2,000 acs.	1,000,000	100,000	10			250,000														
Stormont, s.	Uth.		1,500,000	150,000	10			45,000	Feb., 1880 30													
Savage, G. s.	Nev.	800	11,200,000	112,000	100	4,740,000	Mar. 1880 50	4,460,000	June 1869 3 00													
Seaton, G. s.	Col.	1,700	500,000	50,000	10	*			May 1877 10													
Sierra Nevada, G. s.	Nev.	3,650	10,000,000	100,000	100	3,750,000	Feb., 1880 3 00	102,000	Jan. 1871 1 00													
Silver King, s.	Ariz	1,500	10,000,000	100,000	100			450,000	Nov. 1878 50													
Standard, s.	Cal.		10,000,000	100,000	100	50,000	July 1878 1 00	1,550,000	Feb., 1880 50	30¾				30		29¾		29¼		29	28½	1,635
Yellow Jacket, G. s.	Nev.	1,200	12,000,000	120,000	100	3,618,000	Mar., 1880 1 00	2,184,000	Aug. 1871 2 50													

Non-Dividend Mines.

Alpha, G. s.	Nev.	306	3,000,000	30,000	100	300,000	Nov. 1879 1 00															
Alta.	Nev.	600		108,000		1,155,000	Jan. 1880 0 50															
Am. Flag, G.	Col	5,300	1,250,000	125,000	10	*																
Andes.	Nev.	2,000	500,000	100,000		405,000	Jan., 1880 0 25							52c	48c	48c				48c		5,600
Baltimore Cons.	Nev.	1,050		84,000		1,015,000	Apr. 1878 0 50															
Benton.	Nev.	600		108,000		91,800	Sept 1879 0 50															
Bechtel.	Cal.			69,000		113,250	Jan., 1880 0 25															
Belvidere.	Cal.	1,500		60,000		48,000	Jan., 1880 0 25			2				1.95	1.90	1.90	1.85					500
Bertha & Edith. G.	Vir.	645 acs.	500,000	500,000	1	*				2¼						2.30				1.90		250
Best & Belcher, G. s.	Nev.	545	10,080,000	100,800	100	942,590	Feb., 1880 1 00															
Buckeye.	Col.		2,000,000	400,000	5	*																
Bullion, G. s.	Nev.	943⅓	10,000,000	100,000	100	3,252,000	Feb., 1880 0 50			61	57c			61c	59c	58c	57c	57c	54c	58c	53c	44,200
Bulwer.	Cal.		10,000,000	100,000	100		Dec., 1877 50															
Calaveras.	Cal.	2,000 acrs	500,000	500,000	1					9				9¼	8⅝	8⅝				8¾		1,015
Cal., B. H.	Dak.		10,000,000	100,000	100	200,000	Jan., 1880 0 50			1.20	1.15			1.35	1.20	1.50	1.30	1.50	1.40	1.6	1.45	43,700
Caledonia.	Dak.	2,188	10,000,000	100,000	100	1,885,900	Mar., 1880 0 50											2.90	2.85			200
Cashier	Co.		500,000	250,000	2	*																
Challenge.	Nev.	90		50,000		10,000	Nov. 1878 0 20															
Cleveland, G.	Col.	3,715	250,000	25,000	10	*																
Cons. Imperial, G. s.	Nev.	468	50,000,000	500,000	50	1,175,099	Jan., 1880 0 20			62c				60c		56c	53c	55c	54c	56c	55c	2,750
Con. Pacific	Cal.	1,400	600,000	60,000	100													4				15
Dahlonega	Ga.		250,000	250,000		*				19c	18c			19c	18c			20c	19c	18c		5,900
Day.	Nev.	1,500	10,000,000	100,000	100	70,000	Feb., 1879 0 15															
Dayton.	Nev.	1,600	10,000,000	100,000	100	750,000	Apr. 1878 0 25															
De Frees.	Ariz	1,500	10,000,000	100,000	100	140,000	May. 1879 15															
Exchequer, G. s.	Nev.	400	10,000,000	100,000	100	530,000	Feb., 1880 0 50															
Gold Placer, G.	Col.		5,000,000	200,000	25																	
Goodshaw.	Cal.		10,000,000	100,000	100	80,000	Dec., 1879 0 25			46c	44c			45c	42c	44c		47c	44c	51c	46c	31,600
Granville, G.	N. C.	1,231 acs.	300,000	300,000	1	*				32c				32c		30c		25				900
Hussey.	Nev.	4,500	10,000,000	100,000	100	125,000	Aug., 1879 0 15			33c	30c			34c	31c	38c	34c	38c	36c	37c	34c	60,500
Julia, G. s.	Nev.	3,000	11,000,000	110,000	100	1,130,500	Dec., 1879 1 00															
Justice, G. s.	Nev.	2,000	10,500,000	105,000	100	3,131,500	Mar., 1880 0 50									1.50						10
King's Mountain, G.	N. C.		1,200,000	120,000	10	*																
Kossuth.	Nev.	2,700	10,700,000	108,000	100	421,200	Aug., 1877 0 15			61c	53c							75c	61c	1	80c	5,500
Lacrosse.	Col.	3,900	1,000,000	100,000	10	*																
Leviathan.	Nev.	2,000	10,000,000	100,000	100	310,000	Mar., 1880 25			48c	47c			47c		47c		45c		45c	44c	5,700
Lucerne.	Col.	4,200	5,000,000	500,000	10	*				17c	15c			15c	14c	10c		14c		14c		1,200
Mariposa preferred.	Cal.	44,287	5,000,000	500,000	100	1,425,000	June 1877 1 00			19c	18c			18c				18c				2,100
" common.	Cal.	acres.	10,000,000	100,000	100	1,425,000	June 1878 1 00															
May Belle.	Cal.	1,500	10,000,000	100,000	100	36,000	Jan., 1880 0 15							3.80	3.60	3¾	3.50	3.55				245
McClinton.	Cal.	1,000		60,000		90,000	Mar., 1880 0 25									22c						165
McCracken.	Ariz	4,500	10,000,000	100,000	100	100,000	Sept. 1879 0 25															
Mexican, G. s.	Nev.	600	10,080,000	100,800	100	1,135,400	Feb., 1880 2 00															
Mono.	Cal.	750	5,000,000	50,000	100	125,000	Sept. 1879 1 00															
Navajo	Nev.	600	10,000,000	100,000	100	145,000	Feb., 1879 0 20															
New York.	Nev.	1,000	10,000,000	100,000	100	885,000	Feb., 1880 0 05															
Nth. Standard.	Cal.																					
Orig. Keystone.	Nev.	1,500	10,000,000	100,000	100	125,000	July 1879 0 25															
Overman, G. s.	Nev.	1,200	3,840,000	38,400	100	2,481,080	Dec., 1879 2 00															
Quicksilver preferred.	Cal.	8,500	4,291,300	42,913	100	*								65½								100
" common.	Cal.	acres.	5,708,700	57,087	100	*								21⅝		21		20½	20⅜	20½		1,000
Rappahannock, G.	Va.	345 acres	250,000	250,000	1	*				45c	42c			45c	41c	43c	41c	43c	41c	43	40c	21,900
Seg. Belcher, G. s.	Nev.	160	640,000	6,400	100	244,800	Oct., 1876 3 00															
Shamrock.	Colo		10,000,000	100,000	100					1.20	1.10			1.20	1.15	1.15		1.15		1.20	1.15	4,500
Silver Hill, G. s.	Nev.	5,400	10,800,000	108,000	100	1,566,000	Jan., 1880 0 50															
Silver Prize.	Nev.	1,500	10,000,000	100,000	100	65,000	Mar., 1879 0 25															
So. Bulwer	Cal.	1,500		100,000		95,000	Feb., 1880 0 25			1.70	1.60			1.65		1.80	1.65	1.85	1.80	2	1.95	25,500
So. Noonday.	Cal.									1.80												300
South Hite G. M. Co.	Cal.		2,500,000	100,000	25					2,50	2.45			2.45	2.36	2.50	2.35	2.50	2.3	2.55	2.40	14,800
Sutro Tunnel	Nev.		20,000,000	2,000,000	10	*				3¾	3⅛			3¾	3⅝	3¾	3⅛	3⅝	3¼	3⅜	3⅛	21,015
Tiptop.	Ariz		10,000,000	100,000	100	120,000	Apr. 1878 0 25									4.20		4.40		4.40		210
Tioga.	Cal.	1,500	10,000,000	100,000	100	155,000	Dec., 1879 0 20							3				2.90	.85			450
Trio.	Col.	1,250	150,000	150,000	1													75c				400
Trojan.	Nev.	1,500	10,000,000	100,000	100	290,000	Jan., 1880 0 25															
Tuscarora	Nev.		10,000,000	100,000	100	50,000	Feb 1880 0 15			23c	20c			30c	28c	30c	29c	29c	28c	30	27c	2,300
Union Cons. G. s.	Nev.		10,000,000	100,000	100	880,000	July. 1879 2 00															
Utah.	Nev.	1,000	2,000,000	20,000	100	1,140,000	Jan., 1880 2 00															
Ward.	Nev.	1,200	11,000,000	110,000	100	143,000	Jan., 1880 0 40															
Wells Fargo.	Nev	1,500	10,000,000	108,000	100	253,800	Dec., 1879 0 10															

G. Gold. S. Silver. L. Lead. C. Copper. * Non-Assessable. † Assessment unpaid. ‡ Ex dividend.

Total Assessments levied to date 62,597,110 Total Dividends paid to date 140,149,605 Total shares sold during the week 379,840.

SAN FRANCISCO MINING STOCK QUOTATIONS.

Daily Range of Prices for the Week.

NAME OF COMPANY	CLOSING QUOTATIONS. Feb. 20.	Feb. 21.	Feb. 23.	Feb. 24.	Feb. 25.	Feb. 26.	Opening. Feb. 27.
Alpha	7 1/2	7 1/2	.....	7	7 1/2	8 3/4	8 3/4
Alta	3 7/8	3 7/8	.....	3 1/4	3 1/8	3 1/4	3 1/4
Argenta	1 1/8	1 1/8	.....	1	29-32	21-32	.....
Bechtel	2	2	.....	2	2	2	2
Belcher	11 1/4	10 3/4	.....	10 1/2	11 1/2	12 1/2	12 7/8
Belle Isle	1	1	.....	1	29-32	27-32	.. ..
Belvidere	2 1/2	2 3/8	.....	2 3/4	2 1/2	2	.....
Best & Bel.	9	8 7/8	.....	7 7/8	8 1/2	8 3/4	8 1/2
BlackHawk	13-16	1/2	.....	.....	19-32	3/4	.....
Bodie	8 3/4	8 3/4	.....	8 1/4	8 3/4	8 3/4	.....
Boston Con.	.....	1 1/4	.....	1 1/4	1 1/4	1 1/4	.....
Bullion	3 3/4	3 7/8	.....	3 7/8	3 3/4	4 1/4	.....
Bulwer	9 1/4	10	.....	8 3/4	9	9	9
Caledonia	13-16	11-16	.....	19-32	13-16	27-32	.....
Cal. B. H.	.....	.....	.....	.....	.....	.....	.....
California	3 1/2	3 1/2	.....	3 1/2	3 3/8	3 3/8	3.35
Chollar	6 1/8	5 3/4	.....	5 3/4	6	6	6 1/4
Con. Imp	19-32	9-16	.....	1/2	9-16	9-16	9-16
Con. Pacific.	.....	4	.....	4	4	4	4
Con. Va.	3 5/8	3 3/4	.....	3 1/2	3 1/2	3 3/4	3.65
Crown P'int	4 3/4	4 1/4	.....	4	4 1/4	4 1/2	4 1/2
Dudley	13-32	7-16	.....	1/2	7-16	13-32	.. ..
Eureka Con	14 3/4	14 3/4	.....	13	13	13	.....
Exchequer	3	3	.....	2 3/4	2 3/4	3	3.05
Goodshaw	5-16	5-16	.....	5-16	1/4	.....	.....
Gould & Cur	5 3/8	5	.....	4 3/8	4 7/8	5 1/4	5
Grand Prize	1	1 3/8	.....	1 1/4	1 1/4	1 1/4	.....
Hale & Nor.	6 5/8	6 1/2	.....	6	5 5/8	6 1/2	6 3/4
Hillside	1 1/8	1	.....	.....	.....	1	.....
Indep'd'nce	.....	.....	.....	1 1/4	27-32	29-32	.....
Jackson	.....	2	.....	2	2	2	.....
Julia Con.	1 1/2	1 1/2	.....	1 1/2	1 1/4	1 1/4	1.40
Justice	1 1/2	1 1/2	.....	1 1/8	1 1/8	1 1/4	1 1/4
Kentuck	.....	.....	.....	.....	.....	.....	.....
Lady Wash	21-32	.....	.....	.....	9-16	.....	.....
Leeds	1/2	.....	.....	.....	.....	.....	.....
Leopard	5-32	5-32	.....	5 32	5-32	.....	.....
Leviathan	3-16	.....	.....	5-32	3-16	5-32	.....
Mammoth	2 1/8	2 1/8	.....	2	1 3/4	1 7/8	.....
Manhattan	.....	1 1/8	.....	.....	1 3/8	.....	.....
May Belle	3-16	3-16	.....	3-16	3-16	.....	.....
Mar. White	29-32	.....	.....	29-32	13-16	29-32	1
McClinton	1/2	13-32	.....	11-32	7-16	7-16	.....
Mexican	15	14 1/4	.....	12 3/4	13 3/8	14 7/8	14 1/4
Mono	8 1/4	8 1/2	.....	8	7 7/8	7 3/4	.....
Navajo	5-16	.....	.....	.....	.....	.....	.....
North. Belle	16 1/2	16	.....	15 1/2	15	15 3/4	.....
N. Bonanza	7-16	1/2	.....	7-16	11-32	.....	.....
N. Standard	.....	.....	.....	.....	.....	.....	.....
Noonday	.....	.....	.....	4	4	4	.....
Ophir	16 3/4	16 1/4	.....	15 1/2	16	17	17
Orig. K'ys'e	.....	.....	.....	.....	.....	.....	.....
Overman	5 3/4	6	.....	5 3/4	6	6 3/4	.....
Potosi	3 5/8	2 7/8	.....	2 7/8	3 1/8	3 1/4	3 1/4
Ray. & Ely.	13-16	11-16	.....	3/4	19-32	.....	.....
R. de Monte	1 1/2	1 1/2	.....	.....	.....	.....	.....
Savage	5 3/4	5 1/2	.....	4 7/8	4 3/4	5	5 3/4
Scorpion	.....	.....	.....	.....	.....	.....	.....
Seg. Belcher	.....	.....	.....	.....	.....	.....	20
Sierra Nev.	21 3/4	20 7/8	.....	20 1/2	20 3/4	22 3/8	22
Silver Hill	1	29-32	.....	27-32	13-16	27-32	1
Silver King	7	7	.....	.....	7	.....	.. ..
So. Bulwer	1 1/2	1 1/2	.....	1 3/8	1 3/8	2	.....
Summit	.....	.....	.....	.....	.....	.....	.....
Syndicate	1 3/8	.....	.....	1 3/8	1 3/8	1 1/4	.....
Tioga	.....	.....	.....	2 3/4	2 3/4	2 3/4	.....
Tip Top	4 1/2	4 1/2	.....	4 1/2	4 1/2	.....	.....
Trojan	11-32	5-16	.....	1/4	3-16	.....	.....
Tuscarora	.....	.....	.....	.....	.....	.....	.....
Union Con.	33 3/4	31 3/4	.....	30 3/4	31 1/2	33 1/2	33
Utah	.....	.....	.....	.....	.....	.....	11 1/8
Wales	3	3	.....	3	3	.....	.....
Yel. Jacket	8 3/4	7 7/8	.....	7 1/4	7 1/8	8 1/2	8 1/2

REVIEW OF THE SAN FRANCISCO MARKET.

The San Francisco market is somewhat irregular, a fact which is mainly traceable to demagogism, which is now afflicting our friends of the Pacific Coast. Some of the "favorites" show an improvement to-day, but the general market is unquestionably unsettled. The great and continued depression of California mining stocks at San Francisco calls forth this remark from the San Francisco *Stock Report:*

"There are all manner of theories to explain the depression, the most popular being the belief that the reduction in values is made with a view to defraud the Assessor, who, under the provisions of the new Constitution, will shortly levy on the various stocks. Many persons have sufficient confidence in the explanation to leave the securities alone for the present."

A bill is now before the California Legislature to compel superintendents to report weekly or even daily the exact condition of the property under their charge. The enactment of such a law would do much to dispel the mystery which often hangs over the stock market.

The *Gold Hill News* makes the following significant comments;

"Notwithstanding the great promise of the Comstock mines, there will undoubtedly be a large exodus from this section when spring opens. Men who are out of work will go and prospect, or dig, or mine, or do something. The eastern portion of the State is mentioned by many as their objective point, while Colorado and places south will no doubt get a large influx of desirable population from Western Nevada."

Argenta is steady, but for a mine with a promise that this has, the quotations appear low, sales have been made in San Francisco at $1 per share, the same as quoted a week ago. The company is running 10 stamps on a fair-grade ore, which is principally obtained from the 200 level west of the main shaft, a large body of ore is being developed in the 300 level of this mine. Alta opens to-day at $3¼, a slight decline from a week ago. It is said that there is some fine ore on the 1950 level of the mine, and that it runs into the ground of the Benton Company. In the Belcher mine, operations on the 3000 level are going forward vigorously. This stock shows an advance, opening to-day at $12⅞, which is $2 above that quoted a week ago.

Active work is going forward in the Belle Isle Mine. There is no particular change to observe. The stock is steady, closing at $1, the same as reported in our last. No material change is observed in the old Bonanzas—Consolidated Virginia and California. Both continue to yield fairly, the principal amounts coming from the 1750 and 1550 ore-stopes. It is said that new ore-veins are being found in both of these mines, and that they are increasing in dimensions as progress is made to the eastward. The stocks are quoted at the lowest prices of the week, the quotations of both being the same, $3.35 against $3½ a week ago. It is said that there is ore in the Chollar on the 2400 level, and that the outlook is considered very promising. The stock is pretty firm, opening about the same as a week ago.

Eureka Consolidated closed at $15, the same as quoted a week ago. This mine is said to be looking very well, and the prospecting drifts open up very encouragingly. Regarding the depression of this company's stock, it is attributed to the presumption that at the election last fall the Bonanza firm acquired control, and that the depression is an artificial one. This company has brought a suit against the Richmond Co. for a portion of the main shaft which, it is said, comprises about 699 feet in the length of the claim. The ground in dispute is thought to be valuable, and the fight for its possession will be waged on both sides with all the energy and tact that money and legal ability can bring to bear.

There is no particular change in the Grand Ridge mine. The north cross-cut on the 500 level, from recent advices, is in 130 feet, in favorable ledge-matter. No change is observed in other parts of the mine. This stock is unchanged, closing at 1⅜, the same as quoted a week ago. A recent letter from the Independence mine states that the new works are completed, and that a contract has been made to sink the shaft 100 feet, at $18 per foot, company to furnish the material. It is anticipated to soon resume operations an the 400 level. This stock is well maintained.

Mammoth closed yesterday at $2, the same as a week ago. From recent letters, we judge that active work is going forward in this mine; this company's mill, however, is not running. The North Noonday has been granted an injunction against the Orient mine for trespassing on 300 feet of mining ground. It is said to be valued at half a million dollars. Recent sales have been made on the San Francisco market at $2¼. Northern Belle closed at $16, the same as quoted in our last. In our issue of the 21st it was said that the mill was yielding $3500 per month. It should read $35,000.

Ophir is yielding quite satisfactorily. This stock opens at the best price of the week. As regards the recent strike made in this mine, it is said that the cross-cut east on the 2100 level of the Hardy vein is in 40 feet from the stopes through porphyry and 4 feet of very rich ore. After that 6 or 7 feet of lower grade, with a mixture of porphyry.

COMPANY MEETINGS.

Allouez Mining Company, New York	March	9
Salem Mining Company, Boston	"	19
Pewabic Mining Company, Boston	"	24
Quincy Mining Company, New York	"	3
Atlantic Mining Company, New York	"	9
Eagle Harbor Copper Company, New York	"	8
Michigan Mining Company, New York	"	4
Isle Royale Mining Company, New York	"	10
St. Louis Copper Company, Boston	"	9
Harney Mining Company, New York	Feb.	27
Osceola Mining Company, Boston	March	11
Concordia Mining Company, San Francisco	"	1
Golden Chariot Mining Company, San Francisco.	"	1
Northern King Mill and Manufacturing Company, San Francisco	"	13
Yankee Boy Mining Company, Colorado Springs.	"	30

Assessments, with dates when delinquent: Caledonia 50c., March 2d; Savage, 50c., March 6th; Chollar, 50c. March 7th; Potosi, 50c., March 7th; Justice, 50c., March 11th; Dudley, 25c., March 6th; McClinton, 25c., March 8th; Hillside, 30c., March 6th; North Belle Isle, 15c., March 7th; Jackson, $1, March 12th; University, 10c., March 26th; Champion (Nevada County, Cal.), 5c., March 1st; Wide Awake, 3c., March 15th; Indian Queen, 15c., March 20th; Telfair, 2c., March 13th; Western, $1, March 30th; Bodie Tunnel, 20c., March 31st; Happy Valley Blue Gravel, 10c., Monarch Gravel, $3, March 8th; Rocky Point, 10c., February 20th.

PHILADELPHIA MINING STOCKS.

From the official lists of the exchanges, we have compiled a table, giving a synopsis of the transactions in mining stocks at the Philadelphia Stock Exchange and of the new Mining Exchange in that city, for the past week. By this it will be seen that the transactions aggregate 115,818 shares, prominent in which were sales of 48,815 shares of Iowa Gulch at $1.15@$1, 13,100 of Dauntless at 60@50c., 8553 of Orion at $2.70@$2, 8250 of Argenta at $1.50@$1.40, and large sales of Findley, Granville, South Hite, and other stocks dealt in in this market.

The subjoined table shows the opening, highest, lowest, and final sales of all the mining stocks dealt in at the Philadelphia Stock Exchange, and at the Philadelphia Mining Exchange, for the week ending the 26th inst:

Stocks.	Opening.	Highest.	Lowest.	Final.	Sales Shares.
	$	$	$	$	
Iowa Gulch	1.10	1.15	1.00	1.10	48,815
Bechtel	1.95	2.00	1.80	1.85	1,800
Bodie	9.00	9.00	8¾	8¾	700
Cons. Imperial	.63	.63	.60	.60	1,000
Findley	.63	.70	.63	.66	7,800
Martin White	1.05	1.05	1.00	1.00	700
So. Hite	2.60	2.60	2.40	2.45	2,800
Sutro Tunnel	3⅞	4.00	3½	3½	1,500
Dahlonega	.19	.19	.18	.18	600
Dauntless	.55	.60	.50	.55	13,100
Buckeye	.57	.59	.56	.57	2,400
Belle Isle	1.25	1.35	1.05	1.05	1,800
Hukill	4.00	4.10	4.00	4.10	1,000
Granville	.32	.37	.32	.37	6,000
Gold Placer	.47	.47	.45	.45	1,200
Argent	1.50	1.50	1.40	1.40	8,250
Navajo	.23	.30	.23	.30	200
Green Mountain	3.05	3.05	....	3.05	500
Shamrock	1.15	1.20	1.10	1.15	1,300
Tioga	2.85	2.90	2.85	2.85	500
Tip Top	4.15	4.15	4.00	4.05	700
Tombstone	5.25	5.25	3.50	3.50	200
Orion	2.70	2.70	2.00	2.25	8,553
Independence	1.10	1.10	1.05	1.10	1,000
Leadville	3.65	3.65	....	3.65	200
Great Eastern	.53	.53	.47	.47	1,600
Cons. Virginia	3.60	3.65	3.55	3.65	400
Gold Hill	6.00	....	....	6.00	400
California	3.60	3.60	3.50	3.50	800

Total transactions, 115,818

During the week ending the 26th inst., there were 4500 shares of Ore Knob Copper Company sold in the Baltimore Stock Exchange at prices ranging from 4⅞ to 6¼.

Copper and Silver Stocks.

Reported by C. H. Smith, Commission Stock Broker, No. 15 Congress street, Room 3.

BOSTON, Feb. 26.

The market for copper stocks was quite active in the early part of the week, but the holiday on Monday seems to have had an unfavorable influence on operators, and the transactions the past few days have been small, and prices are rather depressed at the close of business to-day.

There has been more doing in Calumet & Hecla this week, and prices are firm at 242½@245, the highest price being reached to-day; closing, 245 bid, 246 asked.

Copper Falls advanced to 15½, closing, however, offered at 15.

Franklin sold at 49 on the 21st; on the 24th, sales were made upon the basis of 40,000 shares at 24½@24¾, closing to-day rather heavy at 23¾@24.

Quincy declined to 40 on small sales, rallying, however, to 40¾; closing, 40 bid; none offered.

Osceola steady at 45¾@46½, with but little doing, closing, 46 asked.

Pewabic sold at 66 on the 24th, but declined on a dull market to 64, closing 62 bid, 62¾ asked.

Atlantic very steady but dull at 26@27, closing bid 26.

Allouez, few sales at 22@22½, and offered at 23 at the close.

Blue Hill advanced to 8, closing 7¾@8.

Huron advanced early in the week to 14⅜, but did not hold the advance, and declined to 13¼, closing 13 bid.

Ridge, very dull at 8½.

Brunswick Antimony declined to 12½, closing, however, at 12¾ bid.

The non-producing mines have been dull and inactive. We note sales of Dana at 1, closing 1@1⅛.

Humboldt, at 1¾@1⅞, closing 1⅞ bid.

Madison, at 3⅜@3½, closing 3½ asked.

National, at 5⅝@5¾, closing 5¾ asked.

Star, sales 3⅜@3½, closing 3 bid.

Winthrop, sales 1⅛@1⅜, closing 1@1¼.

Mesnard, sales 4¼@4¼, closing 4 asked.

Atlas, sales 1⅜, closing 1¼@1⅜.

Rockland, sales 1@1¼, closing 1 asked.

Pontiac, sales 1⅝@1⅞, closing 1⅝@1⅞.

Hanover, 9/16@¾, closing ½@¾.

Copper Harbor, ½@⅞.

SILVER STOCKS.

Sullivan Silver in good demand, with sales at 13¾@14¼, closing 14¼ bid.

Duncan Silver steady at 4@4¼.

Silver Islet sold at 21@21¼, closing 20 bid.

Catalpa Silver (Leadville) was put on the board at 4, declined to 2¼, and closed at 2½@2⅝.

We take the following from the Portage Lake *Mining Gazette:*

The Schoolcraft Mining Company, whose mineral estate adjoins the Calumet & Hecla on the north, is to be reorganized, the number of shares increased, and an assessment called to furnish money to carry out a line of exploring and opening on belts running through the property. The services of Captain Sowden have been engaged, and at the earliest possible moment he will commence work on the Osceola amygdaloid. Work is progressing as fast as it can at this season, in open-cut mining, on the Huron. The west and spar deposits are being explored, and in a short time will be opened at several points down

COAL STOCKS.

NAME OF COMPANY.	Capital Stock.	SHARES. No.	SHARES. Par Val.	Last Dividend. Mo.	Y.	R't.	Rate per Ann.	Quotations of New York stocks are based on the equivalent of $100. Philadelphia prices are quoted, so much per share. Feb. 21. H.	Feb. 21. L.	Feb. 23. H.	Feb. 23. L.	Feb. 24. H.	Feb. 24. L.	Feb. 25. H.	Feb. 25. L.	Feb. 26. H.	Feb. 26. L.	Feb. 27. H.	Feb. 27. L.	SALES.
	$		$				Per c'nt													
Am. Coal Co.	1,500,000	60,000	25	....	..	....	....	....	.....	....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Atl. Coal Co..	.....	.....	10	....	..	....	....	1.50	.....	....	.....	.....	.....	....	.....	.....	.....	.....	.....	600
Buck Mt.Coal	.....	.....	50	....	..	....	....	....	.....	....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Ches. & O. RR	15,000,000	150,000	100	....	..	....	....	22⅞	22½	....	.. ..	22¾	21¾	22⅛	20¾	22¼	22	21¾	21½	6,890
Consol. Coal	10,250,000	102,500	100	Jan.	77	2½	....	....	.....	....	.....	.....	.....	....	.....	.....	.....	.....	.....	.....
Cumb. C. & I.	500,000	5,000	100	....	..	....	....	....	.....	....	.....	61	.....	....	.....	.....	.....	.....	.....	30
Del. & H. C..	20,000,000	200,000	100	Aug	76	4	9	78	76	....	.....	80¼	76	78	76½	70⅝	78¼	79¾	78¾	28,581
D., L.&W. RR	26,000,000	524,000	50	July	76	2½	5	88	86¼	....	.....	89⅝	87¾	89¼	87⅛	91¼	89¾	92½	90¾	260,470
Lehigh C.& N	10,148,550	208,971	50	Sept	76	1½	5¼	37¾	37⅜	.. ..	.....	38	37¾	37¾	37⅛	38⅜	37⅞	38¼	38	5,765
Leh. V'y R. R	27,228,855	540,858	50	Sept	79	1	4	52½	52⅜	... ..	.....	52½	52⅜	52¼	52¼	52½	52¼	52½	52¼	3,487
Mary'd Coal	4,400,000	44,000	100	Jan.	76	1½	1½	....	.....	....	.....	....	.....	....	.....	24	.....	....	.....	100
Montauk C'l.	2,500,000	25,000	100	....	..	....	....	....	.....	....	.....	58	.....	57	.....	56½	55	56½	55	1,625
Morris & Es'x	15,000,000	300,000	50	July	79	3½	7	+	105¾	....	.....	107	106½	107	105¼	107¼	106½	109	107⅛	4,812
New Cen. C'l	5,000,000	50,000	100	Jan.	79	2	...	28	26¾	....	.....	27½	27¾	.....	.....	31	27¾	31¼	30	6,100
N. J. C. R. R.	20,000,000	200,000	100	Apr	76	2½	2½	85¼	83¾	....	.....	86½	84	86¾	84¼	87⅝	86⅛	87¾	86	96,317
Penn. Coal...	5,000,000	100,000	50	Oct.	79	3	....	....	.....	....	.....	....	.....	....	.....	197⅛	.....	....	.....	20
Penn. R. R..	68,870,200	1,337,404	50	Nov.	79	2½	10	53	52¾	....	.....	52⅞	52¾	52¾	52⅜	52⅛	52¾	52⅞	52¾	38,245
Ph. & R. R.R*	34,278,175	685,563	50	Jan	76	2½	10	68¾	66¼	....	.....	69⅜	69	69	67¾	69¼	68	69⅜	69	43,124
Spring Mt.C'l	1,500,000	30,000	50	Dec.	79	3½	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....
Spruce H. C'l	.....	.....	....	....	..	....	....	....	.....	....	.....	....	.....	....	.....	....	.....	....	.....	.....

*Of the sales of this stock, 27,424 shares were sold at the Philadelphia Stock Exchange, and 15,700 at the New York Stock Exchange.

†106¾. Total Sales..... 496,166.

BOSTON MINING STOCKS.

NAME OF COMPANY.		Feb. 20. H.	Feb. 20. L.	Feb. 21. H.	Feb. 21. L.	Feb. 23. H.	Feb. 23. L.	Feb. 24. H.	Feb. 24. L.	Feb. 25. H.	Feb. 25. L.	Feb. 26. H.	Feb. 26. L.	SALES. Shares.
Allouez, c.....	Mich.	....	.....	....	.....	.....	.....	22½	22	22½	.....	.....	.....	175
Atlantic, c.....	Mich.	26	.....	26	.....	.....	.....	27	26	.....	.....	26	.....	332
Atlas.....	Mich.	....	.....	1⅜	.....	.....	.....	.....	.....	.....	.....	.....	.....	200
Blue Hill, c.....	Me..	7½	.....	....	.....	.....	.....	7¾	7½	....	.....	8	7⅞	1,260
Brunswick.....	Me...	13⅝	13	....	.....	.....	.....	14	13¼	12¾	12½	12¼	12¼	845
Calumet & Hecla, c.....	Mich.	243	242½	....	.....	.....	.....	243½	242½	244	243	245¾	244	191
Catalpa.....	.....	3	2⅝	....	.....	.....	.....	2⅞	2¾	2¾	2¼	2½	.....	7,850
Central, c.....	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Chrysolite	Colo..	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Copper Falls, c.....	Mich.	14½	14	15	12¼	.....	.....	15¼	14½	15¼	15	15	.....	2,140
Copper Harbor, c	Mich.	87½c	.....	75c.	.....	.....	.....	.....	.....	62½c	.....	50c.	.....	500
Dana, c.....	Mich.	1	.....	1	.....	.....	.....	1	.....	1	95c.	1	.....	1,175
Douglas, c.....	Me..	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Duncan, s.....	Ont..	4⅛	4	....	.....	.....	.....	+	4¼	....	.....	4⅜	4	710
Franklin, c.....	Mich.	48¾	48½	49	.....	.....	.....	24¾	24¼	24¾	24½	24¼	23½	2,516
Great Western.....	....	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Hanover.....	Mich.	....	.....	62½c	.....	.....	.....	75c.	.....	....	.....	....	.....	150
Humboldt, c.....	Mich.	1⅜	.....	1½	1⅜	.....	.....	.....	.....	1½	1	1½	.....	1,230
Hungarian, c.....	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Huron.....	Mich.	14¼	13⅞	14¼	14	.....	.....	14⅜	14	14½	13	13¼	.....	2,310
International, s.....	Ont.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Madison.....	Mich.	3½	.....	3½	3⅜	.....	.....	3⅜	.....	....	.....	....	.....	810
Manhattan, c.....	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Mesnard, c.....	Mich.	4⅛	.....	....	.....	.....	.....	4¼	4	....	.....	....	.....	300
Minnesota, c.....	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
National, c.....	Mich.	5⅝	.....	5¾	.....	.....	.....	....	.....	....	.....	5¾	.....	300
Orford.....	....	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Osceola, c.....	Mich.	....	.....	46½	46	.....	.....	....	.....	46¾	.....	45¾	.....	100
Pewabic, c.....	Mich.	65¼	.....	65	.....	.....	.....	66	.....	65	64¾	64	.....	385
Phœnix, c	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Pontiac, c.....	Mich.	....	.....	....	.....	.....	.....	1⅞	.....	....	.....	1⅝	.....	300
Ridge, c.....	Mich.	....	.....	....	.....	.....	.....	8¾	.....	....	.....	....	.....	10
Rockland, c.....	Mich.	....	.....	1¾	1	.....	.....	....	.....	....	.....	....	.....	215
Quincy, c.....	Mich.	42	41½	....	.....	.....	.....	41½	41¼	41½	41	40¾	40	485
Silver Islet, s.....	Mich.	21¼	21	....	.....	.....	.....	21	.....	....	.....	....	.....	130
So. Hite, c.....	Cal..	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Star, c.....	Mich.	3½	3¼	3½	.....	.....	.....	3½	.....	3¼	.....	....	.....	400
Sullivan, s.....	Me..	*	13¾	14⅛	14	.....	.....	14¼	14	.....	.....	14⅛	14	1,655
Superior, c.....	Mich.	⅝	.....	....	.....	.....	.....	62½c	.....	....	.....	....	.....	150
Sutro Tunnel.....	Nev.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Union Land & Copper Co.	Mich.	5⅞	5½	.....	.....	.....	.....	5⅝	.....	.....	.....	‡	4½	825
Washington, c.....	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
W. Minnesota.....	Mich.	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....
Winthrop, c.....	Mich.	1¼	.....	1⅜	1¼	.....	.....	1¼	.....	1¼	.....	1¼	.....	950
.....	.....	....	.....	....	.....	.....	.....	....	.....	....	.....	....	.....	.....

c. Copper. s. Silver. * 13 15-16. + 4 5-16. ‡4 9-16.

to settled ground. Mechanics are engaged in putting in shape, building on the mine, and making such repairs as are necessary before commencing unwatering the Huron mine proper. Some of the dormant mines in Keweenaw County are attracting considerable attention just now. The past industrial history of that district is replete with encouragement for those who intend to carry forward the work of development on sound business principles, and in the light of the advance that has been made in the economical working of copper mines on Lake Superior within the past few years, and since the industries under consideration shut down. One of the most promising of the idle mines on Keweenaw point is the Madison, which adjoins the Central. The mineral estate of the Madison is ample, covering, as it does, a mile east and west, and three miles north and south, which insures the possession of most of the floors and belts running with the formation, and also a chance at the fissure veins of the region which have given it prominence as a producer of copper. The mine has merit, and if worked on a comprehensive scale, it can not fail of becoming in time a business enterprise of magnitude and profit....Work is sufficiently advanced on the Quincy rock-house to warrant the assertion that it will be ready for occupancy early next month. In the mean time the necessary annual repairs to the stamp mill are going on, and will be completed the same time the rock-house is finished.

Coal Stocks.

NEW YORK, Friday Evening, Feb. 27.

Notwithstanding the fact that the week under review has included but five business days, the sales of coal stocks aggregate nearly 500,000 shares, an increase of over 150,000 as compared with those of the preceding week; prices as a rule show great improvement, and to-night's closing quotations, in most instances, represent the highest prices of the week. The Philadelphia market has been dull and somewhat irregular, prices remaining about the same.

Delaware, Lackawanna & Western has been very active, the transactions amounting to 260,470 shares, selling on Saturday at 86¾ and to-day at 92½, these being the extreme prices. Delaware & Hudson opened on Saturday at 76, touched 80¼, and closes to-day at 79½, with sales of 28,581 shares.

New Jersey Central has been dealt in to the amount of 96,317 shares, the prices ranging from 83¾ to 87⅞.

Pennsylvania Railroad has been very steady at 53 @52⅝, with sales of 38,245 shares. Reading has fluctuated between 67¾@69⅜, with transactions of 15,700 shares in New York and 27,424 in Philadelphia.

There have been sales of Cumberland Coal and Iron at 61, Maryland Coal at 24, New Central at 26¾@ 31¼, and Pennsylvania Coal at 197½.

The Montauk Gas Coal Co., which was lately listed on the Stock Exchange, claims to own 1200 acres of land at Flemington, Va., on the line of the Baltimore & Ohio RR., and to lease 450 acres more. The capital stock is $2,500,000, divided into 25,000 shares of the par value of $100 each. The company claims to be shipping 400 to 500 tons per day, and that by July it will have a capacity of 2500 tons per day. The sales of this stock during the week amount to 1625 shares at 58@55.

The annual election for officers of the Lehigh & Wilkes-Barre Coal Company was held on the 26th inst., with the appended result: President, Francis S. Lathrop; Directors, Messrs. Charles Parrish, G. G. Haven, F. A. Potts, J. N. A. Griswold, John Kean and John S. Barnes.

Philadelphia & Reading RR.—It is stated that the Waterman & Beaver Iron Works, at Danville, in Pensylvania, have been purchased by this company, and that preparations are being made to run them at their full capacity. For the last six months the company has had a corps of engineers running a railroad line from Shamokin to Danville, a distance of 20 miles, and it is said that if the road proposed is built that part of the Catawissa branch of the Reading Line from Danville to Port Clinton probably will be abandoned.

Miscellaneous Stocks and Quotations.

Sales and quotations of the stocks and bonds dealt in at New York, Philadelphia, and Baltimore, for the week ending the 26th inst., are given in the following tables. The Philadelphia quotations will have a * affixed. The Baltimore quotations are indicated thus †.

STOCKS.	Par Value.	High'st	Lowest	Closing	Sales: Shares.
St. L., I.M.& S.R.Co..	100	64	60¼	61⅝	‡46,240
*Cambria Iron Co..	50	100	.....	100	212
*Penn. Salt Mf'g Co.	50	....	.....	....	.....
*Schuyl. Nav. Co. pf	50	16	15⅞	15⅞	410
*N. Central RW....	50	34	32¾	33⅞	4,887
*H. & B.T.Mt.RR. pf	50	15½	.....	15½	100
" " " com.	.....	12⅛	12	12	201
Northern Penn. RR.	50	51⅛	50¾	50¾	196
†B.&O.RR.Co.1st pf	.....	.....	.....	.....	.....
†B.&O.RR.Co.2d pf	100	106	.....	.....	20
" " " com	90	156	154½	156	70

BONDS.	Princ'l. When Due.	Int'est. When Due.	Hig'st.	Lowest	Amount.
D., L. & W., 7s, conv	1882	J. & D.	.....	.....	.....
" " " 2d 7s....	1907	M. & S.	.....	.....	.....
M. & E., 1st con., 7s	1915	J. & D.	109½	109	$22,000
" " " 2d 7s....	1891	F. & A.	.....	.....	.....
" " " 7s, 1871...	1901	A. & O.	115	.....	2,000
N.J.C., 1st mtge. new	1890	F. & A.	116½	.....	8,000
" " " 1st mtge., con	1899	Q.	108	107	‡80,000
" " " convt. 7's ...	1902	M. & N.	107¾	107½	‡3,000
" " " Adimt bds....	1903	M. & N.	107⅝	107¼	10,000
" " " Income.....	1908	M. & N.	.....	.....	.....
L. & W. B., con....	1900	Q.	100⅛	93¾	197,000
" " " Income	1888	M. & N.	91¾	88	108,000
Am. Dock & Imp. 7s	1886	J. & J.	.....	.....	.....
St. L. I.M.& S. 1st mt	1892	.... ..	115⅜	115	9,000
" " " " " pf. inc.	...	.....	94	90½	232,000
" " " " " 2d, 7s	1897	F. & A.	104⅛	103¼	45,000
" " " " " pf. inc.	.....	.....	84	80	518,000
St. L. & I., M. C. & F., 1st, 7s	1891	M. & N.	106½	....	8,000
St. L. & I. M Cairo, A. & T., 1st, 7's..	1897	J. & J.	101¾	....	5,000
Ches. & O., 1st s'rs b	1908	J. & D.	71	69	162,000
" " 6s, cr. int. df	1918	M. & N	45¾	43½	353,000
D & H C Co., 1st m. rg	1884	J. & J.	105	... ..	8,000
" " " " "	1891	J. & J.	107½	.....	9,000
" " " " m. loan cp	1894	A. & O.	112	111½	31,000
" " " " " rg.	1894	A. & O.	.....	.....	.....
" " " " new mge.	.....	.....	.....	.....	.....
" " " " 1st Pa. div., 7s, coup.	1917	J. & D.	116½	.....	50,000
" " " " 1st Pa.. div., 7s, rg	1917	M. & N.	.....	.....	.....
L.V.R., 1st m. 6s, cp.	1898	M. & S.	.....	.....	.....
" " " rg.	1898	J. & D.	.....	.....	.....
" " " 2d m. 7s, rg.	1910	J. & D.	125½	.....	4,000
" " " con. m. 6s, rg	1823	M. & S.	112	.....	3,000
" " " " 6s cp.	1923	J. & D.	111	.....	2,000
*Pa. RR., 1st m. 6s, cp	1880	J. & D.	102	.....	5,000
" " g. m., 6s, cp.	1910	J. & J.	117	116¾	4,000
" " " 6s, rg.	1910	J. & J.	.....	.....	.....
" " con. m. 6s, rg.	1905	A. & O.	.....	.....	.....
" " " 6s, cp.	1905	Q.	.....	.....	.....
" " new loan, 5s	.....	J. & D.	113	.... .	5,900
*P. & R. R., 1st m. 6s, R. C. 43-44.....	1880	J. & J.	.....	.....	.....
*P. & R. R., 1st m. 6s, R. C. 48-49.....	1880	J. & J	.....	.....	.....
*P. & R. R., gen 6s, G C	1908	J. & J.	86	85¾	11,000
" " " scrip....	1882	J. & J.	88	.....	150
" " " deb. ex-cp.	1893	.....	.....	.....	.....
" " " c.m. 7s, cp.	1911	J. & D.	116	.. ..	3,000
" " " " 7s. rg.	1911	J. & D.	.....	.....	.....
" " " cvt. 7s, exc	1893	J. & J.	67	.....	10,000
*L. Nav. Co., 6s, rg. m.	1884	J. & Q.	107¼	.....	300
" " RR., rg. m.	1897	F. & Q.	.....	.....	.....
" " cvt. Gold R.	1894	M. & S.	.....	.....	.....
" " m Gold R. C.	1897	J. & D.	105	.....	5,000
" " con. m. 7s, rg.	1911	J. & D.	103	102½	28,000
*P. & N.Y.C., 7s, R.C.	1896 / 1906	J. & D.	123¾	.....	5,000
*Pa Canal, 6s....	1910	J. & J.	81	.....	13,000
*Schuyl. Nav., 6s...	1882	.....	81	80	800
Sus. Can. 6s, ex-cp.	1918	.....	.....	.....	.....
*Sus. Coal, 6s, c....	1911	J. & J.	.....	.....	.....
†Balt. & O. RR., 6s..	1880	J. & J.	... ..	.....	.....
" " " " 6s..	1885	A. & O.	... ..	.....	.....

‡ Assented.

Gas Stocks.

NEW YORK, Friday Evening, Feb. 27.

We have to record another rise in gas stocks during the current week, and the market for New York stocks closes strong, with prices tending upward. Brooklyn stocks are dull and heavy. The shareholders of the Municipal Company voted to increase the capital stock from $2,000,000 to $3,000,000. This is the fourth increase of the capital since the company was organized, in 1877.

The Belleville (Ont.) Gas Company has reduced the price of gas to $2.50 per 1000 feet to consumers of 50,000 feet and upward.

The following list of companies in New York and vicinity is

corrected weekly by GEORGE H. PRENTISS, Broker and Dealer in Gas Stocks, No. 24 Broad street, New York.

COMPANIES IN NEW YORK AND VICINITY.	Capital Stock.	Par.	DIVIDENDS. Rate per ann.	Am. of last.	Date of last.	QUOTATIONS Bid.	As'd.
	$		P. ct.				
Mutual, N. Y....	5,000,000	$100	6	1½	July, '79	55	62
" Bonds...	900,000	1,000	6	3½	Feb., '80	100	104
N. York "	4,000,000	.....	8	4	May, '79	100	103
Metrop. "	2,500,000	100	10	3½	Feb., '80	115	120
" Certfs...	1,000,000	.....	7	3½	Feb., '80	99	100
Harlem "	1,850,000	50	6	3	Feb., '78	44	50
Manhat. "	4,000,000	50	....‡	5	June, '79	161	165
Brooklyn, Bkln.	2,000,000	50	15	5	Nov., '79	117	120
Nassau	1,000,000	25	....‡	2½	Jan., '80	50	55
" Certfs...	700,000	1,000	7	3½	Nov., '79	90	100
People's.....	1,000,000	10	...‡	3½	Jan., '76	26¼	30
" Certfs....	250,000	1,000	7	3½	Jan., '80	75	85
" Bonds....	375,000	.....	7	3½	Nov., '79	90	100
Metrop. "	1,000,000	100	5	2½	Jan., '80	50	60
W'msb'g "	1,000,000	50	8	1½	Feb., '80	65	75
" Certfs...	1,000,000	.....	7	3½	Jan., '80	90	100
Citizens'.....	1,200,000	20	...‡	2½	July, '79	58	60
" Bonds...	315,000	1,000	....	3½	Oct., '79	100	103
J. C., N. J.....	750,000	20	10	7½	Jan., '79	145	155
Municipal, N. Y.	2,000,000	100	12	5	Jan., '80	165	175
" Bonds..	750,000	100	7	3½	Nov., '79	105	110
Fult'n M'nicipal.	1,500,000	100	.....	... ...	.....	85	95

THE BULLION MARKET.

NEW YORK, Friday Evening, Feb. 27.

The award of bills by the Indian Council on Wednesday last, at a further decline, has lowered silver abroad and here, and leaves our market dull and nominal at the figures given. There would seem little reason to look for an improvement at present.

DAILY RANGE OF SILVER IN LONDON AND NEW YORK, PER OZ.

DATE.	London Pence.	N. Y. Cents.	DATE.	London Pence.	N. Y. Cents.
Feb. 21.....	52	113⅛	Feb. 25	52	113⅜
Feb. 23.....	52	.....	Feb. 26	52	113⅜
Feb. 24.....	52⅛	113⅜	Feb. 27	52	113⅜

BULLION SHIPMENTS.

We give below a statement showing the latest published bullion shipments, in addition to those announced in our issue of February 21st:

Feb. 2	Northern Belle	Nev.	$6,055
" 6	Alexander	Nev.	9,147
" 8	Leopard	Nev.	4,210
" 9	Northern Belle	Nev.	6,055
" 9	Manhattan Silver Mining Co., 10 bars	Nev.	9,633
" 10	Manhattan Mills	Nev.	9,836
" 11	Paradise Valley	Nev.	3,880
" 11	Silver King, concentrations	Ariz.	14,200 lbs.
" 11	Northern Belle	Nev.	$6,063
" 11	Ontario, 6 bars	Utah.	5,742
" 11	Christy	Utah.	2,187
" 12	Tiger, 24 bars	Ariz.	17,000
" 12	Star	Nev.	3,960
" 9—12	Corbin Mill	Ariz.	6,238
" 12	Manhattan Silver Mining Co., 10 bars	Nev.	10,845
" 12	Horn-Silver, 5 cars	Utah.	12,000
" 13	Ontario, 6 bars	Utah.	5,624
" 12	Old Telegraph, 2 cars; Chicago, 1; Germania lead, 2	Utah.	6,750
" 13	Christy	Utah.	5,697
" 13	Manhattan Silver Mining Co., 10 bars	Nev.	10,558
" 13	Horn-Silver, 3 cars	Utah.	7,500
" 13	Ontaria, 4 bars	Utah.	3,932
" 13	Germania, 2 bars	Utah.	1,450
" 14	Union Consolidated	Nev.	45,434
" 12—14	Star	Nev.	7,560
" 14	Richmond	Nev.	24,610
" 14	Eureka, passing bullion	Nev.	1,000
" 14	Northern Belle	Nev.	7,182
" 14	Sierra Nevada	Nev.	31,843
" 14	Manhattan Silver Mining Co., 10 bars	Nev.	10,947
" 14	Ontario, 4 bars	Utah.	3,987
" 15	Standard Consolidated	Cal.	21,492
" 15	Silver King, concentrations	Ariz.	14,700 lbs.
" 16	Argenta	Nev.	15,500
" 16	Ontario, 10 bars	Utah.	8,562
" 16	Central City	Colo.	4,000
" 16	Germania, 5 cars; Morgan, 1; Germania, 3 cars refined lead and 2 bars silver	Utah.	18,941
" 16	Manhattan Silver Mining Co., 10 bars	Nev.	10,830
" 17	Central City	Colo.	6,500
" 17	Ontario	Utah.	4,348
" 16—17	Eureda Consolidated, base lion	Nev.	60,070 lbs.
" 17	Bodie	Col.	$26,484
" 17	Paradise Valley, 2 bars	Nev.	3,230
" 17	Florida Hill and Black Jack mines, 9 bars	Idaho.	10,671
" 17	Buffalo, 28 bars	Idaho.	28,797
" 17	Rock Bar, waiting shipment	Idaho.	20,000
" 17	Silver City, 1 bar	Idaho.	1,454
" 17	Richmond	Nev.	16,420
" 18	First National Bank Central	Colo.	17,600
" 18	Germania, 1 car; Old Telegraph, 1; Chicago, 3; Germania, 1, refined lead; and 1 bar silver	Utah.	11,977
" 18	Ontario, 4 bars	Utah.	4,055
" 18	Leeds, 3 bars	Utah.	5,995
" 18	Christy, 1 bar	Utah.	1,614
" 18	Horn Silver, 8 cars	Utah.	20,000
" 18	Silver Cliff Mining and Milling Co	Colo.	5,462
" 19	Germania, 3 bars	Utah.	2,840
" 19	Christy, 1 bar	Utah.	1,788
" 19	Ontario, 4 bars	Utah.	4,386
" 19	Horn-Silver, 2 cars	Utah.	5,000
" 19	Eureka, passing	Nev.	1,600
" 19	Silver City mines	Idaho.	3,000
" 20	Old Telegraph, 2 cars; Chicago, 3; Morgan, 2; Germania, refined lead, 5; and silver, 3 bars	Utah.	20,107
" 20	Ontario, 4 bars	Utah.	4,415
" 20	Richmond	Nev.	16,516
" 21	Ontario, 4 bars	Utah.	3,990

Ore is being mined in the Lucky Cuss, Tombstone, that yields $320 per ton.

The Standard Con. Mine, Bodie, is now supplying three mills with ore.

The furnaces at the Modock Consolidated mine, California, were fired up January 22d, and up to the 6th of February 86 tons of ore were worked, yielding 30 tons base bullion.

Quicksilver Shipments.—During the week ending with Tuesday, February 10th, 27,387 pounds of Quicksilver were shipped from Ca listoga to San Francisco.

The following are the leading bullions-producers in Nevada County, Cal., with amounts produced for 1879: Idaho, quartz, $492,535; Milton, gravel, $462,758; Murchie, quartz (4 month s), $37,200; North Bloomfield, gravel, $331,760, and Pittsburg, quartz, $52,100.

The Superintendent of the Green Mountain Mining Company, of California, reports that the first week's clean-up from ore taken from the new chute lode resulted as follows: 170 tons crushed, yielding $2800, or $16.50 to the ton. This exceeds the average per ton over previous workings by $8 or $9 a ton, being a clean profit of $14 per ton.

The Star mine produced $19,591 in January, and the Father De Smet $53,000.

The Deadwood *Press* says: "The run of the De Smet 80-stamp mill in 29 days produced $60,000. At this rate the 200 stamps of the Homestake mills should have cleaned up $140,000, and the aggregate of all the mills on the belt at least $300,000, or at the rate of $4,000,000 per annum."

Since the mill of the Father De Smet began crushing ore in April of last year, 42,000 tons have been worked, yielding $421,973 at a total cost of $120,360, and leaving a net profit of $392,613. The mill is at present running 80 stamps, which the company proposes to double during the coming summer.

The Homestake mine produced $793,140, in 1870, out of which $360,000 was paid in dividends.

The Durango, of the Black Hills, has been added to the gold-producers. A gold brick, valued at $4000, the result of the last clean-up of mill-run, is on its way to this city.

During the year, a silver mill has been put in operation at Galena, Dakota, and is turning out very fine bullion, from $20,000 to $25,000 a month.

Another silver mill is ready for the Snow Storm mine on Bald Mountain, Dakota; and still another, to cost $70,000, is under contract for the Portland mine, in the same locality.

The Black Hills bullion shipments for the year foot up about $4,000,000 in gold.

The Salmon River and Yankee Fork gold and silver mining region, which is now shipping some very rich ores, lies 150 miles west of the Utah & Northern Railroad in Central Idaho, and has no other prospective outlet than the Utah Northern Railroad. The vast salt deposits, which supply such a large demand in Montana, Idaho, and other territories, are 85 miles east of the line in Eastern Idaho, and also shipped by it extensively. The Caribou gold and silver mines lie 100 miles east of Eagle Rock Station, and the great Snake River gulch or placer mines, which extend 400 miles along the stream named, are crossed at Eagle Rock.

Nine tons of ore from the Last Chance mine, at Atlanta, Idaho, lately crushed, yielded $1900.

Twenty-eight tons of rock from the Bannock mine, Silver City, Idaho, were recently crushed at the Scales arrastra and yielded $140 per ton—a total of $3920.

The Butte District mines, Montana, produced in bullion during two weeks in January $43,000.

The Eureka *Sentinel* of February 15th says: "The K K yesterday shipped 150 tons of ore to the Richmond. This is the largest shipment made in a single day by the company."

The Sierra Nevada produced $46,389 from January 1st to the 14th instant.

Considerable gold is arriving at the Carson Mint, Nevada, from the Pine Grove mines.

The Teacup mine, White Pine District, Nevada, has produced bullion to the amount of $700,000.

The product of the Ontario Silver Mining Company from February 1st to February 20th was $108,988.13, assay value

An 8-stamp mill is now going up at Bingham, Utah.

Over 6000 tons of base bullion await shipment at Frisco, Utah. The smelting dumps are loaded.

The bullion shipments from Silver Reef, through Wells, Fargo & Co.'s express, for the week ended February 14th, aggregated $20,956.

The Leadville *Herald* of February 17th publishes the following statement of the operations of the Leadville smelters for the week ending February 14th:

The Grant Smelting Company	$33,560
Leadville Smelter	5,721
La Plata Mining and Smelting Company	50,761
American Smelting Company	4,292
Billing & Eilers	41,777
California Works	4,100
Harrison Reduction Works	23,675
Little Chief	19,105
Ohio & Missouri	8,022
Cummings & Finn	10,260
Gage, Hagaman & Co	15,798
Elgin Mining and Smelting Company	18,340
Eddy, James & Co	33,384
Total	$268,795

The gold fields of Madoc, Ont., which were supposed to have been exhausted, are said to have been the scene of a recent rich find.

The circular of Messrs. Uthoff & Co., of Leadville, for the week ending February 21st, gives the average daily output of that camp at 575½ tons. They say:

"The feature of the week has been the decline in the output of the Little Pittsburg from 135 tons three weeks ago, and 75 tons last week, to 55 tons now; and, strange to say, a decline in the value of this output from an average of $120 a ton six months ago, and $30 a ton a fortnight since, to $20 a ton now. It would seem that a very lean streak had been struck. We refrain from giving currency to the rumors which are afloat, but it is not to be disguised that an uneasy feeling prevails among the friends of the property. A suspension of dividends by this mine would work injury to the best interests of Leadville, and would shake confidence in all our properties. We have a number of letters on the subject, both from believers and unbelievers. We will merely quote from one of the former class, that 'the managers of this mine can produce as much or as little ore as the owners desire.' It is to be hoped that this statement may prove correct."

The circular adds that twenty-five mines in the camp are not producing because the owners are trying to sell them in New York, and the best thing that could happen to the camp would be the entire failure of any such negotiations. One of the most important consolidations recently effected is the Ward Consolidated Mining Company, comprising the El Paso, the Olive Branch and the Cullen mines. Messrs. Max Tabor and associates have bought the Scooper mine, which is considered a fine property.

There are four smelters in course of construction in the Gunnison District—one at Ruby, one at Crested Buttes, one at Gothic City, and one in Rock Creek. The latter has a capacity of 30 tons, and is located 300 yards from the Whopper mine.

Alamosa, Southern Colorado, is to have a smelter.

Silver Cliff has 100 stamps in operation, and 120 more, divided among three mills, are being put in place.

The gold shipment for January, from Central City, Colo., foots up a total of $91,000, as against $113,025 for the month of January, 1879, a decrease of $22,250.—*Central City Register-Call.*

A $5000 or $6000 retort from ore out of the Roderick Dhu mine was one of the attractions at the First National Bank at Central City, Colo., on the 17th instant.

Mill dirt from mines on the Kansas lode, Gilpin County, Colo., is yielding 6 ounces of gold per cord.

The daily bullion product of the Tombstone District will, it is stated, by the end of the current month be not less than $6000 daily.

Pinal County shipped, during January, $76,992.72. Of this $54,000 was from the Silver King and $20,469.20 from the Stonewall Jackson.

The Stonewall Jackson (A. T.) bullion product for 1879 was valued at $79,343.

The Tough Nut mine has produced for December, $39,252.48.

The bullion shipments from Pinal County, Arizona, during January amounted to $76,992.

The Silver Bow mill, near Butte, Montana, has shipped $350,000 during the last twelve months.

The Arizona silver bullion received since January 22d, and up to and inclusive of February 5th, from the Tombstone Mill and Mining Company is $15,343.82; from the Corbin mill, for the same time, $11,101.10; making a total of $26,444.92 for the space of fifteen days. The Corbin mill had been running only a few days.

Colonel Sykes, of Arizona, has bought and paid for a 40-ton smelter, to be erected at San Xavier, near Tucson.

The ore on the dumps at this mine will yield $60,000, and it can be worked at a cost of $15,000, thus leaving a profit of $45,000. Smelters, etc., are now being prepared for this mine

Ratio of Gold to Silver.—WASHINGTON, Feb. 26.—Representative Kelley received in the mail from Germany to-day a seventy-page pamphlet entitled "The Gold Standard—its causes, effects, and future," by Baron von Kandorff, who represented Prince Bismarck during the tariff discussion as leader of the Protestant wing of the Conservative party of the Reichstadt. It is an elaborate defense of bimetalism on the basis of 15½ to 1, and contains many quotations from the writings and speeches of Judge Kelley, the late Henry C. Carey, and Henry Carey Baird, as well as from many British and Continental writers. The appearance of the pamplet is regarded as an expression of the opinion of Prince Bismarck on the subject, as Baron Kandorff is one of the chiefs of his party. Accompanying the pamphlet was a letter from another distinguished German writer on finance, with whom Judge Kelley has been in correspondence for many years. The writer is largely engaged in the manufacture of iron, and is President of one of the largest coal companies in Westphalia. He says: "Your latest pamphlet on the subject is just making its round here. Bi-metalism is the order of the day at all public meetings. Things have taken a turn to the better here; but as far as I can see it is but in consequence of American orders, and I have prophesied that American orders will be stopped as soon as the United States can supply their home demand, which will be a question of time, and a short one, too."

During the recent debate in the German Reichstag on the Treasury budget, Herr Scholz. Under Secretary of State in the Treasury Department, said the sales of silver were stopped simply because the government would not bear the responsibility for losses arising from them. The suspension, however, was only provisional, not definitive. The question was merely one of prolongation of the time required for carrying out the coinage reform. There had been, in South Germany especially, a greater demand for silver coins than was expected. A bill would, therefore, be presented in the Reichstag, probably during the course of the present session, for the modification of clause 4 of the Coinage law.

Exports of Gold and Silver from New York.

Week ending February 21st	$161,670
Corresponding week last year	310,365
Since January 1st	1,157,263
Corresponding period last year	2,240,319

Gold Interest paid out by the Treasury.

Week ending February 21st	$515,168
Corresponding week last year	257,506
Since January 1st this year	11,290,085
Corresponding period last year	13,316,950

Silver for Coinage.—WASHINGTON, Feb. 26.—The Treasury Department to-day purchased 507,000 ounces of fine silver for delivery at the Philadelphia, New Orleans, and San Francisco mints. It is stated that this purchase makes the full quota of $2,000,000 worth of bullion for the month of February. It is understood that of the amount purchased to-day 100,000 ounces were for the Philadelphia Mint and the remainder is divided equally between the New Orleans and San Francisco mints.

The San Francisco Mint is running light under an alleged scarcity of silver bullion for coinage, the Carson Mint is not doing any coinage, but the Philadelphia and New Orleans mints are crowded with work. San Francisco is the depot for the greater portion of the silver produced in the United States; Carson is near by the openings in the Comstock Lode. Bullion is scarce at neither San Francisco nor Carson.

The Salt Lake Ore Market.—The *Graphic's* correspondent, writing under date of the 16th instant, says: "The shipments of refined lead and bullion for the week ending February 14th are as follows: Five cars Mingo bullion to Pittsburg, two cars Germania bullion to Pittsburg, one car Chicago bullion to Pittsburg, three cars French Company's bullion to Pittsburg, five cars French Company's bullion to Omaha, three cars Morgan bullion to Omaha, two cars Germania bullion to Omaha, one car Chicago bullion to Omaha, twelve cars Horn-Silver bullion to Chicago, three cars Germania lead to San Francisco. Bullion, 713,231 lbs.; lead, 65,650 lbs.; total, 778,881 lbs. The French company has nearly completed its contract of 100 cars to the Omaha Smelting and Refining Company and the Pennsylvania Lead Company. As soon as finished, it will, it is reported, shut down for the present. Its contract was at $65 per ton. If it can not make money at present prices, it certainly ought to shut up shop. Morgan has but four cars to deliver on his last contract. It has been storming in the mountains, and transportation, in consequence, has been greatly interfered with. The Kearsarge is looking finely, and is shipping some rich ore. The Great Basin is shipping to the Chicago smelter about twenty tons of ore daily, and is said to be looking first class.

METALS.

NEW YORK, Friday Evening, Feb. 27.

The business of the past three weeks has been dull, owing to the large purchases made earlier in the year and late in December. It was but natural to expect the present condition of affairs. Dealers are confident of an early revival and a much better business in March.

Copper.—Sales of about 500,000 lbs., at 24⅛c. for April and 25c. for May deliveries are reported. In cash lots, we do not learn of any business of importance. At the close, the quotation is 24c., and strong. There is some discrepancy in the London quotations for Chili bars to-day. In one office it is £71 and in another £72 10s.

The actual stocks of copper increased about 1000 tons in England and France from the 1st to the 14th of February, while the advices of the amount chartered and afloat increased this amount over 400 tons. London advices of the 13th inst. say:

"Chili bars have sold to a moderate extent at £72@£72⅛ for cash, according to brand, and a little three months' metal at £73⅛@£74; but the total business did not exceed 400 tons, both buyers and sellers being indisposed to operate, the telegram with news of charters being expected to arrive to-morrow, when also the stocks will likewise be made up.

"Nothing doing at present in Australian, Wallaroo remaining firm at £81@82, and Burra Cake at £80@81.

"English is held by smelters for full rates, and they are not disposed to book large orders even at the top quotations. We call Tough Cake, £78@£81; Select Ingot, £80@£82; India Sheets, £81⅛@£82⅛, other Sheets, £82⅛@£83½. Yellow Metal Sheets, 6¾@7c. ℔ lb."

Tin.—We only note 100 tons of futures at 23c. The London quotation of Straits to-day is £93. Yesterday's quotation at Singapore was $30.87½@$31, and at Penang, $30.20@$30.25, with exchange at 3s. 10d. A considerable demand from China continues. We quote in this market as follows: 23@23¼c.; L. & F., 22½@22⅝c; Refined, 22¾c.; Australian, 22¾c.; Billiton, 22⅝@22¾c.

Tin Plates.—These have been very quiet. Prices are unchanged and nominally as follows:

"Charcoal tins, third cross, Melyn grade, at $9.75; Allaway grade, $9.62½; Charcoal ternes, Dean grade, $9.25, and Allaway grade, $9; Coke tins, B. V. grade, $8.37½@$8.50; and ternes, $8.50@$8.62½.

Messrs. Robert Crooks & Co., of Liverpool, under date of February 2d, say of tin and terne plates:

"Demand and inquiry have, during the last few days, fallen away almost entirely, and, in consequence, holders of second-hand parcels have become scared, and press sales to realize. Makers, on the other hand, are, with very few exceptions, so heavily booked as to be entirely indifferent to the present condition of market, and figure their quotations forward on the basis of values ruling and being paid for material. Rightly or wrongly, general impression is, present depression is temporary, and that no one but re-sellers will have to materially reduce quotations."

Lead.—Sales of 200 tons of common in lots is reported, and 200 tons of corroding at 6½c. At the close, 5·95@6c. is asked.

The exports of lead from London and Liverpool to the following places in January, for the years mentioned, were:

	1878. Tons	1879. Tons	1880. Tons.
To Madras	....	....	80
" Calcutta	177	25	....
" Bombay	52	60	....
" China	355	575	613
" Japan	402	10	....
" Singapore and Penang	20	....	....
Total	1,006	670	693

The receipts of lead at St. Louis by the St. Louis & San Francisco RR. during the week ending February 14th were 272 tons, making a total of 1434 tons since January 1st.

Spelter and Zinc.—Spelter is quiet, and quoted at 6¾c. We note sales of about 150 casks of sheet zinc, and quote at 8½@8¼c.

Antimony.—We do not learn of any business in this article. We quote as follows: Cookson's 24c.; Hallett's, 20c., and Johnson & Mathy's, 19½c.

Quicksilver.—The San Francisco *Commercial Herald* of February 19th says:

"During the early part of the week, some 1200 flasks were sold at 40c, but since then holders have advanced their rates to 42½c., with a good undertone to the market."

IRON MARKET REVIEW.

NEW YORK, Friday Evening, Feb. 27.

American Pig.—There has been but a very small business. Lots from second hands are offered at a concession, and also from some of the weaker furnace companies. Most of the furnace companies are, however, firm at our quotations. The outlook is not very encouraging for maintaining present prices. There is too much iron being shipped to this country from abroad. The shipments of all kinds of iron from Great Britain alone for the month of January were at the rate of over 1,500,000 tons per annum, and it is said they will be greater this month and in March. Furthermore, foreign iron is selling at lower rates than American, while formerly it sold higher. We quote nominally as follows: No. 1 Foundry, $40; No. 2 Foundry, $38@$39, and Forge, $37@$38.

Scotch Pig.—The arrivals have been quite large and considerable coming to weak parties, who have been compelled to realize. The consequence is a weak market. There have been sales of several hundred tons at prices not given. We quote Coltness at $34@$35; Glengarnock, $32; Summerlee, $32.50; Gartsherrie, $32, and Eglinton and Carnbroe, at $31@$32.

Messrs. John E. Swan & Co., of Glasgow, under date of February 6th, 1880, report 111 furnaces, against 87 at the same time last year. The quantity of iron in Connal & Co.'s stores was 438,341 tons, an increase of 2938. The shipments show an increase of 20,271 tons since Christmas, as compared with the shipments to the same date last year. The imports of Middlesbrough pig-iron for the same period show an increase of 19,382 tons. The following are the quotations of the leading brands of No. 1 pig-iron: Gartsherrie, 80s.; Coltness, 85s.; Langloan, 80s.; Summerlee, 80s.; Carnbroe, 81s.; Glengarnock, 81s.; Eglinton, 76s. Middlesbrough pig-iron was quoted as follows, f. o. b. Tees: No. 1 Foundry, 67s. 6d.; No. 2, 64s.; No. 3. 61s. 6d.; No. 4, 61s. 6d.; No. 4 Forge, 62s. 6d.

Messrs. John E. Swan & Co., of Glasgow, under date of February 13th, 1880, report 111 furnaces, against 88 at the same time last year. The quantity of iron in Connal & Co.'s stores was 440,942 tons, an increase of 2601 tons for the week. The shipments show an increase of 28,282 tons since Christmas, as compared with the shipments to the same date last year. The imports of Middlesbrough pig-iron for the same period show an increase of 16,426 tons. The following are the quotations of the leading brands of No. 1 pig-iron: Gartsherrie, 80s.; Coltness, 82s. 6d.; Langloan, 80s.; Summerlee, 82s. 6d.; Carnbroe, 80s.; Glengarnock, 80s.; Eglinton, 75s. Middlesbrough pig-iron was quoted as follows, f. o. b. Tees: No. 1 Foundry, 68s. 6d.; No. 2, 65s.; No. 3, 62s. 6d; No. 4, 62s 6d.; No. 4 Forge, 63s. 6d.

Rails.—There is no business to note in these. Steel rails are quoted f. o b. Great Britain at £9 10s.@£9 15s., and here at $85 at Eastern mills, and $87@$90 at Western mills. Iron, although quiet, but in some demand. They can be laid down here at $62.50@$65. At the Eastern mills, $65 is asked, and in the West, $70.

Messrs. John H. Austin & Co., of London, under date of February 12th, say: "Steel and iron rails continue very firm at our quotations, and makers report no difficulty in getting orders at almost maximum figures. We quote steel rails at £9 15s.@£10, and iron rails at £9@9 5s."

Old Rails.—These are very quiet. We quote D. Hs. at $42.50@$43, and T's at $42.

Wrought Scrap.—Without business, we quote at $42@$42.50 from dock, and $45 from yard.

We publish the following letters from our regular correspondents:

"BALTIMORE, Feb. 24.

"The demand for pig-iron keeps fully up to the means of supply, and prices remain firm at about following rates:

Balt. Char.	$58.00@$60.00	M. & White	$37.00@$39.00
Va. "	58.00@ 60.00	C'lC.B.Blooms	100.00@110.00
Anth. No. 1	42.00@ 43.00	" " Billets	100.00@110.00
" " 2	41.00@ 42.00	Refi'd Blooms	85.00@ 90.00
" " 3	39.00@ 40.00		

"R. C. HOFFMAN & Co."

"COLUMBUS, Feb. 25.

"The demand for pig-iron the past week has increased somewhat, and a firmer feeling prevails. Inquiries for forward delivery are quite frequent. An active demand is looked for in March.

FOUNDRY IRONS

No. 1 Hanging Rock Charcoal	$42.00@$43.00
No. 2 " "	41.00@ 42.00
No. 1 Hocking Valley	40 00@ 41.00
No. 2 Hocking Valley	38.00@ 39.00
No. 1 American Scotch	40.00@ 41.00
No. 1 Glasgow	40.00@ 41.00
No. 1 Jackson County	39.00@ 40.00
No. 2 "	36.00@ 37.00
No. 1 Silver Gray	36.00@ 37.00
No. 2 " "	35.00@ 36.00

MILL IRONS.

Gray neutral	37.00@ 38.00
Mottled and white neutral	34.00@ 35.00
Mottled and white cold short	33.00@ 34.00
Gray cold short	34.00@ 35.00

"KING, GILBERT & WARNER."

"ST. LOUIS, Feb. 21.

"There is an increased demand for pig-iron, and offerings are more liberal. Prices are well maintained, and all the signs appear to point to a very strong market in March.

"Mill iron is offering more largely, and we have heard of sales of cold short at $36, but only in a small way to clean out poor lot.

CHARCOAL HOT BLAST.

Missouri	$47.00@49.00
Southern	40.00@43.00
Hanging Rock	43.00@46.00

COKE AND COAL.

Missouri	None offering.
Southern, No. 1	40.00@42.00
Ohio River, No. 1	40.00@42.00
Mill iron	36.00@40.00

CAR WHEEL IRONS.

Missouri	50.00@55.00
Southern	52.00@53.00
Ohio	55.00@60.00

IRON ORE.

For fix	12.00@15.00
Furnace	8.00@10.00

"CARD & HOFFER."

THE COAL TRADE REVIEW.

NEW YORK, Friday Evening, Feb. 27.

The week under review has witnessed a further strengthening of prices until now some of the companies have been refusing orders even at circular rates. It is now very evident that prices will be advanced fully 25c. per ton for April; and should the harmony now prevailing among the companies be continued (and there is no indication of any discord), there will be no trouble in maintaining the advance.

On Washington's birth-day, when all was quiet, the coal managers met and considerably strengthened their arrangements for curtailing production. The following circular, issued by the New Jersey Central RR., is the substance of what was agreed to by all: "No coal to pass weigh-scales after twelve o'clock, Wednesday night, but all coal that has passed weigh-scales may be moved to destination. No coal to be drawn from chutes after day's work Wednesday at mines is finished. No empties to be moved from Wednesday night until Monday morning, except such as interfere with traffic on main line east of Phillipsburg." This certainly does look as though the companies intended to curtail the production to the actual requirements of the market. This plan, which was proposed by the late Judge Packer, and largely opposed by some of the officers of other companies, is very simple, and appears to give, in practice, more satisfaction than any plan previously tried. It is said that there is more harmony among the companies than for years. This unquestionably arises from the fact that in their efforts to regulate the trade too much is not attempted. There is one thing to be feared, and that is, that the companies will advance prices to so high a point as to limit the demand.

The demand for anthracite coal has been very fair

this week, and the outlook for a good spring business is very good.

The production last week was at a rate less than 14,000,000 tons per annum, and was over 100,000 less than the previous week, and nearly as much less as compared with the corresponding week of 1879. Should this curtailment continue until April 1st, as now proposed, it should put the coal trade upon a very satisfactory footing for the balance of the year.

ANTHRACITE COAL TONNAGE.

Statement of anthracite coal tonnage for month of January, 1880, compared with same period last year.

	January. 1880.	January, 1879.	Difference. Increase.
Phil. & R. RR.....	397,291·13	390,671·16	6,619·17
Lehigh Val. RR....	320,184·12	210,745·00	109,439·12
Cen. RR of N. J....	279,777·04	202,395·10	77,381·14
Del., L. & W. RR.	280,429·04	246,353·09	34,075·15
D. & H. Canal Co.	266,221·07	189,732·12	76,488·15
Penn. RR.....	96,164·19	95,536·17	628·02
Penn. Coal Co.....	86,530·12	79,657·19	6,872·13
N. Y., L. E. & W. RR.....	37,716·10	26,657·19	11,058·11
Total. .. ..1,764,316·01		1,441,751·02	322,564·19

The stock of coal on hand at tide-water shipping points, January 31st, 1880, was 856,812 tons; on December 31st, 1879, 613,512 tons; increase, 243,300 tons.

JOHN H. JONES, Accountant.

No. 227 SOUTH FOURTH STREET, PHILADELPHIA, February, 1880.

A dispatch from Philadelphia, dated yesterday, says:

"Committees of the Lehigh and Schuylkill Coal Exchanges met here this afternoon and agreed to a general advance of 25 cents per ton in the prices of lump, steamboat, and broken sizes, for the line, city, and harbor trades for March. The current Lehigh circular prices at Mauch Chunk are, therefore: Lump, $3; steamboat and broken, $2.75; egg and chestnut, No. 1, $2.50; stove, $2.60, and chestnut, No. 2, $1.50. Schuylkill Haven: Lump, broken, and steamboat, $2.75; egg and chestnut, $2.50; stove, $2.60; pea, $1.50. The increase applies particularly to the furnace trade."

The production of anthracite coal last week was 263,026 tons as compared with 375,172 tons the previous week and 361,486 tons the corresponding week of 1879. The total production from January 1st to February 21st was 2,620,529 tons, against 2,562,750 tons for the like period of last year, showing an increase this year of 57,779 tons.

Our Philadelphia correspondent writes as follows under date of February 26th:

"The curtailment of work to three days per week gives a full demand for all the coal produced, and for some of the stocks on hand. It is to be hoped that by April 1st the market will be in a condition to take the full production. Hard White Ash will necessarily be scarce all the year, the large sizes absorbed by the iron works curtailing the production of the smaller sizes considerably.

"An advance on Lump, Steamboat and Broken is spoken of for March 1st, and has been inaugurated by the Lehigh regions, with a probability of its becoming general.

Freights to Boston are unusually low for the season, namely, $1.25, and a few orders are coming daily. The freights are expected to rise when the demand for coal at tide takes a fair start. Southern freights dull, and dealers still well supplied with old stocks at low prices. The Southern trade will start unusually late this year."

Bituminous.

As was expected, the Clearfield and Cumberland miners struck for an advance in wages on Monday. The Cumberland companies acceded to the demands while the Clearfield companies are unanimous in opposing them. The labor question among the bituminous producers looks as though it would be a very unsettled one for some time to come, owing to a lack of harmony among the producers.

As the Cumberland companies continue to produce, the strike in the Clearfield region has had no perceptible effect upon the price of bituminous coal.

New York.

Retail Prices.

Per ton of 2000 lbs,
Anthracite.

	G. & Egg.	Stove.	Chest.
Pittston coal delivered.....$4.25		$4.25	$4.25
Lack. coal, delivered below 50th St.	4.50	4.75	4.50

Wholesale Prices of Bituminous Coal.

MANUFACTURING AND STEAM COALS.

Cumberland at G'n & Alexandria.....	.....	.....
Cumberland, at Baltimore.....	*3.25	.....
Cl'rfl'd "Eureka" and "Franklin."		
At mines.....	1.25	.....
At Baltimore.....	3.25	5.25
At Philadelphia.....	3.50	.....
At South Amboy	4.85	.....

* F. o. b.

DOMESTIC GAS COALS.

Per ton of 2240 lbs.	At the Shipping Ports.	Alongside at New York.
Westmoreland and Penn.....$4.25		.....
At Greenwich, Philadelphia	.....	$5.50
At S. Amboy.	5.00	5 50
Kanawha at Richmond	4.10	5.40
Murphy Run, West Va., at Baltimore. ..	3.75	5.85
Fairmount, West Va., " " ...	3 75	5.70
Newburg Orrel, Md. " " ...	3.75	6.00
Cannelton & Peytona Cannel, West Va.		10.00
" Splint " at Richmond.	6.00	7.00
" Gas Coal at Richmond	4.00	5.65

FOREIGN GAS COALS.

	Sterling.	Am. cur'ncy
Newcastle at Newcastle-on-Tyne.....	7s.6d.	$2 50@ $3.50
Liv. House Orrel, at Liv.....	25s.	13.00
Ince Hall Cannel " ....,	35s.6d.	18.00
" Gas Cannel "	25s.6d.	10 00@ 10.5
Scotch Gas Cannel, at Glasgow, nominal.....	25s.	7.50
	Gold.	
Bl'k House, at Cow Bay, N.S.	$1.60	....
Caledonia, at Pt. Caledonia.	1.50	$4.25
Glace Bay at Glace Bay....	1.50	4.00
Lingan, at Lingan Bay.....	1.50	....
Intern'l Mines, at Sydney...	1.60	....
Pictou, Vale Mines, at Pictou	2.00	4.70

Wholesale Prices of Anthracite Coal Delivery f. o. b. at Tide-Water Shipping Ports, per ton of 2240 lbs.

	Lump.	Steamer.	Grate.	Egg.	Stove.	Chestnut.
WYOMING COAL.	$	$	$	$	$	$
* Pittston at Newburg.. ..	3 55	3 55	3 45	3 50	3 95	3 80
Scranton at Hoboken..... .	3 40	3 40	3 40	3 45	4 00	3 75
Lackawanna at Weehawk'n	3 40	3 40	3 40	3 45	3 00	3 85
Wilkes-Barre at Pt. Johnson	3 40	3 40	3 40	3 45	4 00	3 85
Plymouth R. A. at P. John.	.....	.....	3 40	3 55	4 15	3 85
LEHIGH COAL.						
Honey Brook at Port John..	4 00	.....	3 60	3 60	4 00	3 75
Cross Creek at Port John..	3 50	3 50	3 25	3 25	3 75	3 50
Up. L. & Coun. Ri'geat Eliz'pt	4 00	3 50	3 50	3 50	4 00	3 50
SCHUYLKILL COAL.						
†*Alongside at N. Y. Harbor.*						
Hard White Ash.....	4 00	4 00	3 95	3 95	4 30	4 00
Free-Burning White Ash...	.....	.....	3 70	3 75	4 30	4 00
Schuylkill Red Ash.....	.....	.....	.....	4 25	4 65	4 15
Shamokin.....	.....	.....	.....	4 75	4 75	4 15
Lorberry.....	.....	.....	.....	4 85	4 85	4 25
Lykens Valley (Brookside).	.....	.....	5 75	5 75	5 75	4 75
At Elizabethport.						
Hard White Ash..... ...	4 75	4 75	3 60	3 60	4 00	3 85
Free-Burning White Ash...	.....	.....	3 40	3 45	4 00	3 85
Schuylkill Red Ash.....	.....	.....	.....	3 75	4 25	3 85
Shamokin.....	.....	.....	.....	3 60	4 00	3 85
Lorberry.....	.....	.....	.....	4 50	4 50	4 00
Lykens Valley (Brookside).	.....	.....	5 25	5 25	5 25	4 25
At Port Richmond, Philadelphia, for shipment to points beyond capes of the Delaware.						
Hard White Ash.....	4 25	4 25	3 25	3 25	3 65	3 50
Free-Burning White Ash...	.....	.....	3 05	3 10	3 65	3 50
Schuylkill Red Ash.....	.....	.....	.....	3 40	3 00	3 50
Shamokin.....	.....	.....	.....	3 25	3 85	3 50
Lorberry.....	.....	.....	4 00	4 00	4 65	3 60
Lykens Valley (Brookside).	.....	.....	4 75	4 75	4 75	4 25

* Fifty cents per ton additional for delivery at New York.
† On coal delivered f. o. b. at shipping wharf at Williamsburg, the current rate of harbor freight will be allowed from above prices.

STATISTICS OF COAL PRODUCTION.

This is the only Report published that gives full and accurate returns of the production of our Anthracite mines.

Comparative statement for the week ending Feb. 21st, and years from January 1st:

TONS OF 2240 LBS.	1880. Week.	1880. Year.	1879. Week.	1879. Year.
Wyoming Region.				
D. & H. Canal Co..	33,974	426,615	40,298	361,862
D. L. & W. RR. Co.	50,671	457,942	60,349	434,788
Penn. Coal Co.....	12,931	75,837	17,821	136,315
L. V. RR. Co.....	16,484	156,482	20,632	107,445
P. & N. Y. RR. Co..	.....	1,247	317	4,139
C. RR. of N. J.....	16,036	176,894	33,437	182,745
	130,096	1,331,013	172,854	1,227,204
Lehigh Region.				
L. V. RR. Co.....	33,955	349,152	35,400	270,511
C. RR. of N. J	31,702	238,638	39,311	234,441
S. H. & W. B. RR..	.....	2,446	.....	3,390
	65,657	590,236	74,711	508,342
Schuylkill Region.				
P. & R. RR. Co	57,378	628,721	104,412	768,365
Shamokin & Lykens Val.....	8,800	64,807	8,597	50,113
	66,178	693,528	113,009	818,478
Sullivan Region.				
St Line&Sul. RR. Co.	1,095	5,752	912	8,636
Total	263,026	2,620,529	361,486	2,562,750
Increase.....	.....	57,779	.....	.....
Decrease	98,460	.....	.....	.....

Total same time in 1875.....	1,142,077 tons.
" " " " 1876.....	1,487,276 "
" " " " 1877.....	2,022,819 "
" " " " 1878.....	1,819,392 "
" " " " 1879.....	2,562,750 "

The above table does not include the amount of coal consumed and sold at the mines, which is about six per cent of the whole production.

The increase in shipments of Cumberland Coal over the Cumberland Branch and Cumberland and Pennsylvania railroads amounts to 116,155 tons, as compared with the corresponding period in 1879.

Belvidere Delaware Railroad Report for the week, and years ending Feb. 21st:

	Week.	Year. 1880.	Year. 1879.
Coal for shipment at Coal Port (Trenton)	7,497	62,019	35,927
Coal for shipment at South Amboy	8,631	61,936	43,539
Coal for distribution..... ..	1,744	14,587	12,609
Coal for Company's use			

Fairhaven Business:

	Tons.
Coal on hand Feb. 14th.....	29,842
Receipts.....	1,344
Shipments.....	.....
On hand Feb. 21st.....	31,186

The Production of Bituminous Coal for the week ending Feb. 21st was as follows:

Tons of 2000 lbs., unless otherwise designated.

	Week. Tons.	Year. Tons.
Cumberland Region, Md.		
Tons of 2240 lb	33,175	231,621
Barclay Region, Pa.		
Barclay RR., tons of 2,240 lbs.....	7,829	61,336
Broad Top Region, Pa.		
Huntingdon & Broad Top RR.....	3,265	27,460
*East Broad Top.....	745	6,168
Clearfield Region, Pa.		
*Snow Shoe.....	1,369	9,333
*Tyrone and Clearfield..... 38,797		269,475
Alleghany Region, Pa.		
*Pennsylvania RR.	5,383	38,398
Pittsburg Region, Pa.		
*West Penn RR.....	5,629	27,907
*Southwest Penn. RR.....	1,388	9,041
*Penn & Westmoreland gas coal, Pa. RR.....	22,784	142,653
*Pennsylvania RR.....	4,425	46,824

*For the week ending Feb. 14th.

The Production of Coke for the week ending Feb. 14th:

Tons of 2000 lbs.	Week	Year.
Penn. R R. (Alleghany Region)....	1,163	8,190
West Penn. RR.....	1,854	11,938
Southwest Penn. RR..... 18,345		101,026
Penn. & Westmoreland Region, Pa. RR..	2,662	16,040
Pittsburg, Penn. RR..... 10,515		90,040
Total..... 34,539		227,234

FREIGHTS.

Coastwise Freights.

Per ton of 2240 lbs.

Representing the latest actual charters to Feb. 27th, 1880.

PORTS.	From Philadelphia.	From Baltimore.	From Elizabethport, Port Johnson, South Amboy, Hoboken and Weehawken.
Alexandria.....	.....	.....	.....
Annapolis.....	.....	.....	.....
Apponang .	.....	.....	1.00
Baltimore	55	.....	.....
Bangor.....	.....	.....	.....
Bath, Me.....	.....	.....	.....
Beverly.....	.....	.....	.....
Boston, Mass.....	1.25	.....	1.15
Braintree.....	.....	.....	.....
Bridgeport, Conn.	.....	.....	.....
Burlington	.....	.....	.....
Cambridge, Mass.	.....	.....	.....
Cambridgeport ..	.....	.....	.....
Camden.....	.....	.....	.....
Charleston.....	95	.....	.....
Charlestown.....	.....	.....	1.15
Chelsea.....	.....	.....	.....
City Point.....	.....	.....	.....
Coosaw, S C....	.....	.....	.....
Damariscotta.....	.....	.....	.....
E. Boston.....	.....	.....	1.15
East Cambridge.	.....	.....	.....
E. Gr'nwich, R. I.	.....	.....	85
Fall River.....	.....	.....	80
Georgetown.....	.....	.....	.....
Hackensack.....	.....	.....	.....
Hartford.....	.....	.....	.....
Keyport.....	.....	.....	.....
Lambertville...	.....	.....	.....
Lynn	.....	.....	.....
Marblehead.....	.....	.....	.....
Medford.....	.....	.....	.....
Millville.....	.....	.....	.....
Milton.....	.....	.....	.....
Mystic River....	.....	.....	.....
New Bedford	.....	.....	90
Newburyport	.....	.....	.....
New Haven.....	.....	.....	.....
New London.....	.....	.....	.....
Newport.....	1.50	.....	80
New York.....	.....	.....	.....
Norfolk, Va	.....	.....	.....
Norwich.....	.....	.....	.....
Norwalk, Conn ..	.....	.....	80
Pawtucket.....	.....	.....	.....
Plymouth.....	.....	.....	.....
Portland.....	.....	.....	1.05
Portsmouth, Va..	.....	.....	.....
Portsmouth, N.H.	.....	.....	.....
Providence.....	.....	.....	80
Provincetown....	.....	.....	.....
Quincy Point....	.....	.....	.....
Richmond, Va...	.....	.....	.....
Rockland.....	.....	.....	.....
Rockport	.....	.....	.....
Roxbury.....	.....	.....	.....
Saco.....	.....	.....	.....
Sag Harbor.....	.....	.....	.....
Salem, Mass.....	.....	.....	1.10
Saugus	.....	.....	.....
Savannah.....	1.18	.....	.....
Somerset.....	.....	.....	.....
Staten Island....	.....	.....	.....
Trenton.....	.....	.....	.....
Troy.....	.....	.....	.....
Wareham.....	.....	.....	.....
Washington.....	.....	.....	.....
Weymouth.....	.....	.....	.....
Williamsbg, N.Y.	.....	.....	.....
Wilmington, Del.	25	.....	.....
Wilmington, N.C.	.....	.....	.....

* And discharging. † And discharging and towing. ‡ 3c. per bridge extra. § Alongside. ‖ And towing up and down. ¶ And towing.